

DAFTAR PUSTAKA

- Abouhashem, N. (2022). The spectrum of genetic variants associated with the development of monogenic obesity in Qatar. *Obesity Facts*, 15(3), 357–365. <https://doi.org/10.1159/000521851>
- Abouhashem, N., Al-Shafai, K. and Al-Shafai, M. (2022). The genetic elucidation of monogenic obesity in the Arab world: A systematic review. *Journal of Pediatric Endocrinology and Metabolism*, 35(6), 699–707. <https://doi.org/10.1515/jpem-2021-0710>
- Akinci, A., Türkkahraman, D., Tekedereli, İ., Özer, L., Evren, B., Şahin, İ., et al. (2019). Novel mutations in obesity-related genes in Turkish children with non-syndromic early onset severe obesity: A multicentre study. *Journal of Clinical Research in Pediatric Endocrinology*, 11(4), 341–349. <https://doi.org/10.4274/jcrpe.galenos.2019.2019.0021>
- Anada, L. F., Wahyuningsih, B. D., and Yuniarti, E. V. (2023). *Hubungan aktivitas fisik dengan kadar gula darah pada pasien diabetes mellitus (DM) di wilayah UPT Puskesmas Sooko* (Doctoral dissertation, Universitas Bina Sehat PPNI).
- Anastasopoulou, L. R., and Sombra, S. C. (2022). Pharmacologic therapy for obesity—StatPearls. *NCBI Bookshelf*. <https://www.ncbi.nlm.nih.gov/books/NBK562269/>
- Ang, M. Y., Takeuchi, F., and Kato, N. (2023). Deciphering the genetic landscape of obesity: A data-driven approach to identifying plausible causal genes and therapeutic targets. *Journal of Human Genetics*. <https://doi.org/10.1038/s10038-023-01189-3>
- Arslan, N., Yilmaz, R., and Cimen, D. (2021). The impact of β2-adrenergic receptor polymorphisms on obesity and metabolic syndrome. *Endocrine Journal*, 68(3), 245–251. <https://doi.org/10.1507/endocrj.EJ20-0381>
- Ashari, M. (2021). *Hubungan antara aktivitas fisik dengan kualitas tidur pada lansia* (Doctoral dissertation, Universitas Hasanuddin).

- Bailey, R. L. (2021). Overview of dietary assessment methods for measuring intakes of foods, beverages, and dietary supplements in research studies. *Current Opinion in Biotechnology*, 70, 91– 96. <https://doi.org/10.1016/j.copbio.2021.02.007>
- Beaulieu, K., Blundell, J. E., Van Baak, M. A., Battista, F., Busetto, L., Carraça, E. V., et al. (2021). Effect of exercise training interventions on energy intake and appetite control in adults with overweight or obesity: A systematic review and meta-analysis. *Obesity Reviews*, 22(S4) <https://doi.org/10.1111/obr.13251>
- Blüher, M. (2019). Obesity: Global epidemiology and pathogenesis. *Nature Reviews Endocrinology*, 15(5), 288–298. <https://doi.org/10.1038/s41574-019-0176-8>.
- Borg, C.-M., and Deguara, J. (2023). Surgery for obesity and its consequences. In *Intestinal Failure* (pp. 301–312). Springer. https://doi.org/10.1007/978-3-031-22265-8_20
- Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., et al. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine*, 54, 1451– 1462. <https://doi.org/10.1136/bjsports-2020-102955>
- Can, R. M., Parmar, A. S. (2023). Physiology, appetite and weight regulation – StatPearls. NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK574539/>
- Cannavo, A., Comegna, M., Castaldo, A., Vinciguerra, C., Lauritano, A., Franco, G. R., ... & Castaldo, G. (2025). EXPLORING THE ROLE OF β 2-AND β 3-ADRENERGIC RECEPTORS IN CYSTIC FIBROSIS. *Pulmonary Pharmacology & Therapeutics*, 102385.
- Chaput, J. P., Willumsen, J., Bull, F., Chou, R., Ekelund, U., Firth, J., et al. (2020). WHO guidelines on physical activity and sedentary behaviour for children and adolescents aged 5–17 years: Summary of the evidence. *International Journal of Behavioral Nutrition and Physical Activity*, 17, 141. <https://doi.org/10.1186/s12966-020-01037-z>
- Chermon, D., and Birk, R. (2023). Predisposition of the common *MC4R* rs17782313 female carriers to elevated obesity and interaction with eating habits. *Genes*, 14(11), 1996. <https://doi.org/10.3390/genes14111996>

- Chiurazzi, M., Cozzolino, M., Orsini, R. C., Di Maro, M., Di Minno, M. N. D., and Avolio, A. C. (2020). Impact of genetic variations and epigenetic mechanisms on the risk of obesity
- Conger, S. A., Toth, L. P., Cretsinger, C., Raustorp, A., Mitáš, J., Inoue, S., et al. (2022). Time trends in physical activity using wearable devices: A systematic review and meta-analysis of studies from 1995 to 2017. *Medicine & Science in Sports & Exercise*, 54(2), 288–298. <https://doi.org/10.1249/MSS.0000000000002794>
- Dao, M. C., Subar, A. F., Warthon-Medina, M., Cade, J. E., Burrows, T., Golley, R. K., et al. (2019). Dietary assessment toolkits: An overview. *Public Health Nutrition*, 22(3), 404–418. <https://doi.org/10.1017/S1368980018002951>
- Deolmi, M., Decarolis, N. M., Motta, M., Makrinioti, H., Fainardi, V., Pisi, G., and Esposito, S. (2023). Early origins of chronic obstructive pulmonary disease: Prenatal and early life risk factors. *International Journal of Environmental Research and Public Health*, 20(3), 2294. <https://doi.org/10.3390/ijerph20032294>
- Dubern, B. (2019). Genetics and epigenetics of obesity: Keys to understand. *La Revue du Praticien*, 69(9), 1016–1019. <http://www.ncbi.nlm.nih.gov/pubmed/32237628>
- Fonseca, A. C. P., Da Silva Assis, I. S., Salum, K. C. R., Palhinha, L., De Medeiros Abreu, G., Zembrzuski, V. M., et al. (2024). Genetic variants in DBC1, SIRT1, UCP2 and ADRB2 as potential biomarkers for severe obesity and metabolic complications. *Frontiers in Genetics*, 15. <https://doi.org/10.3389/fgene.2024.1363417>
- Faizin, N. (2023). *Hubungan obesitas dengan kejadian asma pada anak di Puskesmas Putri Ayu Kota Jambi tahun 2018–2022* (Doctoral dissertation, Fakultas Kedokteran).
- Faridi, A., Trisutrisno, I., Irawan, A. M. A., Lusiana, S. A., Alfiah, E., and Suryana, L. (2022). *Survey konsumsi gizi* (Issue July).
- Fibriana, D. N., Rahmawati, I., and Merbawani, R. (2024). *Hubungan kelebihan berat badan (overweight) dengan kadar HbA1c pada pasien suspect diabetes mellitus di RSUD Syamrabu Bangkalan* (Doctoral dissertation, Universitas Bina Sehat PPNI).
- Gaesser, G. A., and Angadi, S. S. (2021). Obesity treatment: Weight loss versus increasing fitness and physical activity for reducing health

- risks. *iScience*, 24(10), 102995. <https://doi.org/10.1016/j.isci.2021.102995>
- García-Gorrita, C., San Onofre, N., Merino-Torres, J. F., & Soriano, J. M. (2025). Beyond GLP-1 Agonists: An Adaptive Ketogenic–Mediterranean Protocol to Counter Metabolic Adaptation in Obesity Management. *Nutrients*, 17(16), 2699.
- Guthold, R., Stevens, G. A., Riley, L. M., and Bull, F. C. (2020). Worldwide trends in insufficient physical activity from 2001 to 2016: A pooled analysis of 358 population-based surveys with 1.9 million participants. *The Lancet Global Health*, 8(1), e49–e61. [https://doi.org/10.1016/S2214-109X\(19\)30451-6](https://doi.org/10.1016/S2214-109X(19)30451-6)
- Haji, E., Al Mahri, S., Aloraij, Y., Malik, S. S., and Mohammad, S. (2021). Functional characterization of the obesity-linked variant of the β 3-adrenergic receptor. *International Journal of Molecular Sciences*, 22(11), 5721. <https://doi.org/10.3390/ijms22115721>
- Hall, K. D., Ayuketah, A., Brychta, R., Cai, H., Cassimatis, T., Chen, K. Y., et al. (2019). Ultra-Processed diets cause excess calorie intake and weight gain: an inpatient randomized controlled trial of ad libitum food intake. *Cell Metabolism*, 30(1), 67-77.e3. <https://doi.org/10.1016/j.cmet.2019.05.008>
- Hall, K. D., Farooqi, I. S., Friedman, J. M., Klein, S., Loos, R. J., Mangelsdorf, D. J., et al. (2022). The energy balance model of obesity: Beyond calories in, calories out. *The American Journal of Clinical Nutrition*, 115(5), 1243– 1254. <https://doi.org/10.1093/ajcn/nqac086>
- Hastuti, P., Martantiningtyas, D. C., and Beandrade, M. U. (2021). *Lipoprotein, apolipoprotein, dan sindrom metabolik*. UGM Press.
- Hill, J. O., Wyatt, H. R., and Peters, J. C. (2020). Energy balance and obesity. *Circulation*, 126(1), 126–132. <https://doi.org/10.1161/Circulationaha.111.087213>
- Horwitz, A., and Birk, R. (2023). Adipose tissue hyperplasia and hypertrophy in common and syndromic obesity—The case of BBS obesity. *Nutrients*, 15(15), 3445. <https://doi.org/10.3390/nu15153445>
- Husniawati, N., Hidayah, H., Serinadi, D. M., Ping, M. F., Efitra, E., and Yunita, N. (2024). Keperawatan maternitas: Teori komprehensif. PT. Sonpedia Publishing Indonesia.
- Hüls, A., Wright, M. N., Bogl, L. H., Kaprio, J., Lissner, L., Molnár, D., et al. (2021). Polygenic risk for obesity and its interaction with lifestyle

- and sociodemographic factors in European children and adolescents., 45(6), 1321–1330.
- Jonathan, M. S., and Stahl, S. M. (2023). Obesity surgery indications and contraindications – StatPearls. NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK513285/>
- Kementerian Kesehatan Republik Indonesia. (2014). Buku foto makanan (PORSIMETRI). Kementerian Kesehatan RI. <http://sikap.pemkomedan.go.id/sipolan/porsimetri.pdf>
- Kilpeläinen, T. O., Carli, J. F. M., Skowronski, A. A., Sun, Q., Kriebel, J., Feitosa, M. F., et al. (2021). Genome-wide meta-analysis uncovers novel loci influencing circulating leptin levels. *Nature Communications*, 12(1), 1–10. <https://doi.org/10.1038/s41467-021-21238-2>
- Lee, I. M., Shiroma, E. J., Lobelo, F., Puska, P., Blair, S. N., and Katzmarzyk, P. T. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. *The Lancet*, 380(9838), 219–229. [https://doi.org/10.1016/S0140-6736\(12\)61031-9](https://doi.org/10.1016/S0140-6736(12)61031-9)
- Liberty, I. A. (2023). Prediabetes: Update and overview. Penerbit NEM.
- Lin, X., and Li, H. (2021). Obesity: Epidemiology, pathophysiology, and therapeutics. *Frontiers in Endocrinology*, 12, 706978. <https://doi.org/10.3389/fendo.2021.706978>
- Ling, C., and Rönn, T. (2019). Epigenetics in human obesity and type 2 diabetes. *Cell Metabolism*, 29(5), 1028–1044. <https://doi.org/10.1016/j.cmet.2019.03.009>
- Lima, L. R. (2022). ADRB2 gene influences responsiveness to physical exercise programs: A longitudinal study applied to overweight or obese Brazilian children and adolescents. *Pediatric Obesity*, 17(6), e12910. <https://doi.org/10.1111/ijpo.12910>
- Liu, R., Yang, F., Wang, P., Zhao, X., Wu, W., Ma, H., et al. (2024). ADRB1 gene polymorphism regulated the positive inotropic effect of myocardial insufficiency with metabolic syndrome: A basic experimental research.

- Locke, A. E. (2019). Genetic studies of body mass index yield new insights for obesity biology. *Nature*, 518(7538), 197– 206. <https://doi.org/10.1038/nature14177>
- Loos, Ruth. J. F., and Janssens, A. Cecile. J. W. (2020). Predicting polygenic obesity using genetic information. *Cell Metabolism*, 33(1), 1– 13. <https://doi.org/10.1016/j.cmet.2020.10.002>
- Loos, Ruth. J. F., and Yeo, Giles. S. H. (2022). The genetics of obesity: From discovery to biology. *Nature Reviews Genetics*, 23(2), 120– 133. <https://doi.org/10.1038/s41576-021-00414-z>
- Ludwig, D. S., Aronne, L. J., Astrup, A., de Cabo, R., Cantley, L. C., Friedman, M. I., et al (2021). The carbohydrate-insulin model: A physiological perspective on the obesity pandemic. *The American Journal of Clinical Nutrition*, 114(6), 1873–1885. <https://doi.org/10.1093/ajcn/nqab270>
- Mahdalena, N. (2022). Pengaruh aktivitas fisik dengan nilai indeks massa tubuh pada mahasiswa-mahasiswi Fakultas Kedokteran Universitas Islam Sumatera Utara Angkatan 2017 Tahun 2020 [Doctoral dissertation, Universitas Islam Sumatera Utara].
- Mahmoud, R., Kimonis, V., and Butler, M. G. (2022). Genetics of obesity in humans: A clinical review. *International Journal of Molecular Sciences*, 23(19), 11005. <https://doi.org/10.3390/ijms231911005>
- Mainieri, F., La Bella, S., Rinaldi, M., and Chiarelli, F. (2023). Rare genetic forms of obesity in childhood and adolescence, a comprehensive review of their molecular mechanisms and diagnostic approach. *European Journal of Pediatrics*, 182(11), 4781-4793. <https://doi.org/10.1007/00431-023-05159-X>.
- Mayoral, L., Andrade, G., Mayoral, E., Huerta, T., Canseco, S., Canales, F. R., et al.(2020). Obesity subtypes, related biomarkers & heterogeneity. *The Indian Journal Of Medical Research*, 151(1), 11. https://doi.org/10.4103/jjmr.jjmr_1768_17.
- Masuo, K., Katsuya, T., Kawaguchi, H., Fu, Y., Rakugi, H., Ogihara, T., et al. (2022). Relevance of beta2-adrenergic receptor polymorphisms to obesity and hypertension. *Hypertension Research*, 45(1), 34– 42. <https://doi.org/10.1038/s41440-021-00766-1>
- Murty, A. I. (2022). Psikologi Kesehatan. PT RajaGrafindo Persada

- Melluso, A., Secondulfo, F., Capolongo, G., Capasso, G., and Zacchia, M. (2023). Bardet-Biedl Syndrome: Current perspectives and clinical outlook. *Therapeutics and Clinical Risk Management*, Volume 19, 115-132. <https://doi.org/10.2147/tcrm.s338653>
- Mendez, M., and F Sharon, D. (2024). Prader-Willi Syndrome. <https://www.ncbi.nlm.nih.gov/books/NBK553161/>. Retrieved May 10, 2024, from <https://www.ncbi.nlm.nih.gov/books/NBK553161/>
- Mohammed, I., Haris, B., Al-Barazenji, T., Vasudeva, D., Tomei, S., Azwani, I. A., et al. (2023). Understanding the genetics of Early-Onset obesity in a cohort of children from Qatar. *The Journal of Clinical Endocrinology & Metabolism*, 108(12), 3201-3213. <https://doi.org/10.1210/clinem/dgad366>
- Nafi'ah, N., and Hadi, E. N. (2022). Perilaku sedentari dan determinannya: Literature review. *The Indonesian Journal of Health Promotion*, 5(12), 1498-1505. <https://doi.org/10.56338/mppki.v5i12.2795>
- Nasir, A., Bullo, M. M. H., Ahmed, Z., Imtiaz, A., Yagoob, E., Safdar, M., et al. (2019). Nutrigenomics: Epigenetics and cancer prevention: A comprehensive review. *Critical Reviews in Food Science and Nutrition*, 60(8), 1375-1387. <https://doi.org/10.1080/10408398.2019.1571480>
- Naura, R. G. S. (2024). Analisis pengaruh pemberian asupan probiotik (*Lactobacillus casei*) terhadap perubahan berat badan pada mencit (*Mus musculus*) jantan dengan beat badan berlebih [Unpublished undergraduate thesis].
- Palupi, K. C., Anggraini, A., Sa'pang, M., and Kuswari, M. (2022). Pengaruh edukasi gizi "empire" terhadap kualitas diet dan aktivitas fisik pada wanita dengan gizi lebih. *Journal of Nutrition College*, 11(1), 62-73.
- Park, J. H., Moon, J. H., Kim, H. J., Kong, M. H., and Oh, Y. H. (2020). Sedentary lifestyle: Overview of updated evidence of potential health risks. *Korean Journal of Family Medicine*, 41(6), 365. <https://doi.org/10.4082/kjfm.20.0165>
- Perdomo, C. M. (2023). Contemporary medical, device, and surgical therapies for obesity in adults. *The Lancet*, 401(10386), 1116-1130. [https://doi.org/10.1016/S0140-6736\(22\)02403-5](https://doi.org/10.1016/S0140-6736(22)02403-5)
- Plaza-Florido, A., Pérez-Prieto, I., Molina-Garcia, P., Radom-Aizik, S., Ortega, F. B., and Altmäe, S. (2022). Transcriptional and epigenetic response to sedentary behavior and physical activity in children and

- adolescents: A systematic review. *Frontiers in Pediatrics*, 10, 917152. <https://doi.org/10.3389/fped.2022.917152>
- Pontifex, M. B., McGowan, A. L., Chandler, M. C., Gwizdala, K. L., Parks, A. C., Fenn, K., et al. (2019). A primer on investigating the after effects of acute bouts of physical activity on cognition. *Psychology of Sport and Exercise*, 40, 1-22. <https://doi.org/10.1016/j.psychsport.2018.08.015>
- Pontzer, H. (2021). Burn: The Misunderstood Science of Metabolism. Penguin Random House.
- Public Health Nutrition. (2020). Physical activity, energy balance and obesity.
- Qi, L., Cornelis, M. C., Zhang, C., van Dam, R. M., Hu, F. B., and Hunter, D. (2020). Genetic predisposition, Western dietary pattern, and the risk of obesity in men. *The American Journal of Clinical Nutrition*, 92(4), 923– 931. <https://doi.org/10.1093/ajcn/92.4.923>
- Rafiq, A. A., Sutono, S., and Wicaksana, A. L. (2020). Pengaruh aktivitas fisik terhadap penurunan berat badan dan tingkat kolesterol pada orang dengan obesitas: Literature review. *Jurnal Keperawatan Klinis dan Komunitas*, 4(1), 1–9.
- Rask-Andersen, M., Karlsson, T., Ek, W. E., and Johansson, Å. (2019). Genome-wide association study of body fat distribution identifies adiposity loci and sex-specific genetic effects. *Nature Communications*, 10, 339. <https://doi.org/10.1038/s41467-018-08000-4>
- Rippe, J. M., and Foreyt, J. P. (Eds.). (2021). Obesity prevention and treatment: A practical guide. CRC Press. <https://doi.org/10.1201/9781003099116>
- Rohde, K. (2019). Genetics and epigenetics in obesity. *Metabolism: Clinical and Experimental*, 92, 37–50. <https://doi.org/10.1016/j.metabol.2018.10.007>
- Saras, T. (2023). Kalori: Panduan lengkap tentang energi dalam nutrisi. Tiram Media.
- Sari, W. K., and Papilaya, E. (2024). Biotermodynamika: Menggali energi dan keberlanjutan dalam sistem biologis.

- Sanghera, D. K. (2019). Obesity genetics and cardiometabolic health: Potential for risk prediction. *Diabetes, Obesity and Metabolism*, 21(5), 1088– 1100. <https://doi.org/10.1111/dom.13641>
- Silva Anastacio, V. (2024). Nutrigenetics & nutrigenomics and its clinical application [Doctoral dissertation, St. Mary's University].
- Speakman, J. R., O'Rahilly, S., and Allison, D. B. (2022). Obesity: The genetic contribution. *Nature Reviews Endocrinology*, 18(6), 347–358. <https://doi.org/10.1038/s41574-022-00642-8>
- Sumarsih, G. (2023). Cawthorne-Cooksey exercise untuk lansia. CV Mitra Edukasi Negeri.
- Thahir, A. I. A., and Masnar, A. (2021). Obesitas anak dan remaja: Faktor risiko, pencegahan, dan isu terkini. Edugizi Pratama Indonesia.
- Thomas, J. R., Martin, P., Etnier, J. L., and Silverman, S. J. (2023). Research methods in physical activity. Human Kinetics.
- Tirthani, E., and Mina, S. A. R. (2023). Genetic and obesity. PubMed.
- Tremblay, M. S., Ross, R., Chaput, J., Giangregorio, L. M., Janssen, I., Saunders, T. J., et al. (2020). Canadian 24-Hour Movement Guidelines for Adults aged 18-64 years and Adults aged 65 years or older: an integration of physical activity, sedentary behaviour, and sleep. *Applied Physiology Nutrition and Metabolism*, 45(10 (Suppl. 2)), S57-S102. <https://doi.org/10.1139/apnm-2020-0467>
- Ulvie, Y. N. S. (2022). TSH dan fT4 dengan Indeks massa tubuh (IMT) pada pasien dewasa: Studi cross sectional di Klinik Litbangkes Magelang.
- Utami, L. (2023). Energi berpikir positif. Penerbit P4I.
- Veerabathiran, R., Sivakumar, S., Kalarani, I. B., and Mohammed, V. (2023). A Review of Genes Associated with Obesity Susceptibility: Findings from Association Studies. *Journal of Health Science and Medical Research*, 2023959. <https://doi.org/10.31584/jhsmr.2023959>
- Valentine, J. M., Ahmadian, M., Keinan, O., Abu-Odeh, M., Zhao, P., Zhou, X., et al. (2022). B3-Adrenergic receptor downregulation leads to adipocyte catecholamine resistance in obesity. *The Journal of Clinical Investigation*, 132(2). <https://doi.org/10.1172/JCI157628>

Wahyuningsih, W., and Indriyani, Y. (2023). Peningkatan pengetahuan hipertensi melalui Aksi Bersama Cegah Hipertensi (Akamsi) Direban Batang. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(6), 13526-13532.

Wu, W., Chen, Z., Han, J., Qian, L., Wang, W., Lei, J., et al. (2023). Endocrine, genetic, and microbiome nexus of obesity and potential role of postbiotics: a narrative review. *Eating and Weight Disorders - Studies on Anorexia Bulimia and Obesity*, 28(1). <https://doi.org/10.1007/40519-023-01593-w>

World Health Organization. (2020). Physical activity. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>

World Health Organization. (2023). Obesity. <https://www.who.int/health-topics/obesity/>

Zhu, F., Liu, B., Kuang, D., Zhu, X., Bi, X., Song, Y., Quan, et al. (2023). The association between physical activity and sleep in adult ADHD patients with stimulant medication use. *Frontiers Psychiatry*, 14. <https://doi.org/10.3389/fpsyg.2023.1236636>

