

## REFERENCES

- Almaraz-Espinoza, A. and Grider, M.H. (2023). *Physiology, Long Term Memory*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK549791>.
- AlJohri, R., AlOkail, M. and Haq, S.H. (2019). Neuroprotective role of vitamin D in primary neuronal cortical culture. *eNeurologicalSci*, 14, pp.43–48. doi:<https://doi.org/10.1016/j.ensci.2018.12.004>.
- Arfian, N., Budiharjo, S., Wibisono, D.P., Setyaningsih, W.A.W., Romi, M.M., Saputri, R.L.A.A.-N.W., et al., (2020). Vitamin D Ameliorates Kidney Ischemia Reperfusion Injury via Reduction of Inflammation and Myofibroblast Expansion. *The Kobe Journal of Medical Sciences*, [online] 65(4), pp.E138–E143. Available at: <https://pubmed.ncbi.nlm.nih.gov/32201429/> [Accessed 11 Mar. 2023].
- Arfian, N., Muflikhah, K., Soeyono, S.K., Sari, D.C.R., Tranggono, U., Anggorowati, N., et al., (2016). Vitamin D Attenuates Kidney Fibrosis via Reducing Fibroblast Expansion, Inflammation, and Epithelial Cell Apoptosis. *The Kobe journal of medical sciences*, [online] 62(2), pp.E38-44. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5425134/>.
- Ataie, Z., Choopani, S., Foolad, F., Khodaghali, F. and Goudarzvand, M. (2022). Vitamin D3 mediates spatial memory improvement through nitric oxide mechanism in demyelinated hippocampus of rat. *Brazilian Journal of Pharmaceutical Sciences*, [online] 58. doi:<https://doi.org/10.1590/s2175-97902022e20245>.
- Baron, J.-C., Yamauchi, H., Fujioka, M. and Endres, M. (2013). Selective Neuronal Loss in Ischemic Stroke and Cerebrovascular Disease. *Journal of Cerebral Blood Flow & Metabolism*, [online] 34(1), pp.2–18. doi:<https://doi.org/10.1038/jcbfm.2013.188>.
- Bisaz, R., Travaglia, A. and Alberini, C.M. (2014). *The Neurobiological Bases of Memory Formation: From Physiological Conditions to Psychopathology*. *Psychopathology*, [online] 47(6), pp.347–356. doi:<https://doi.org/10.1159/000363702>.
- Bye, C.M., Hong, N.S., Moore, K., Deibel, S.H. and McDonald, R.J. (2018). *The effects of pool shape manipulations on rat spatial memory acquired in the Morris water maze learning & behavior*, 47(1), pp.29–37. doi:<https://doi.org/10.3758/s13420-018-0319-0>.
- Cowled, P. and Fitridge, R. (2011). Pathophysiology of Reperfusion Injury. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK534267/#:~:text=Introduction>.
- Curdt, N., Schmitt, F.W., Bouter, C., Iseni, T., Weile, H.C., Altunok, B., et al. (2022). Search strategy analysis of Tg4-42 Alzheimer Mice in the Morris Water Maze reveals early spatial navigation deficits. *Nature*, 12, 5451. <https://doi.org/10.1038/s41598-022-09270-1>
- Dhikav, V. and Anand, K.S. (2012). Hippocampus in health and disease: An overview. *Annals of Indian Academy of Neurology*, [online] 15(4), pp.239–246. doi:<https://doi.org/10.4103/0972-2327.104323>.

- Dominguez, L.J., Farruggia, M., Veronese, N. and Barbagallo, M. (2021). Vitamin D Sources, Metabolism, and Deficiency: Available Compounds and Guidelines for Its Treatment. *Metabolites*, [online] 11(4), p.255. doi:<https://doi.org/10.3390/metabo11040255>.
- Drake, R.L., Vogl, W. and Mitchell, A.W.M. (2020). *Gray's anatomy for students. 4th ed.* Philadelphia: Elsevier.
- Fahmy, E., Sharaf, S., Helmy, H. and Sherif, S. (2019). Vitamin D status in acute ischemic stroke: relation to initial severity and short-term outcome. *The Egyptian Journal of Neurology, Psychiatry and Neurosurgery*, [online] 55(1). doi:<https://doi.org/10.1186/s41983-019-0068-9>.
- Fogwe, L.A., Reddy, V. and Mesfin, F.B. (2023). Neuroanatomy, Hippocampus. [online] *Nih.gov*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK482171/#:~:text=The%20hippocampus%20is%20a%20convex,the%20temporal%20lobe's%20medial%20surface>. [Accessed 7 Dec. 2023].
- Gusel'nikova, V.V. and Korzhevskiy, D.E. (2015). NeuN As a Neuronal Nuclear Antigen and Neuron Differentiation Marker. *Acta Naturae*, [online] 7(2), pp.42–47. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4463411/>.
- Hermawati, E., Arfian, N., Mustofa and Partadiredja, G. (2018). Spatial Memory Disturbance Following Transient Brain Ischemia is Associated with Vascular Remodeling in Hippocampus. *The Kobe journal of medical sciences*, [online] 64(3), pp.E93–E106. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6347044/> [Accessed 6 Dec. 2023].
- Hui, C., Tadi, P. and Patti, L. (2022). Ischemic Stroke. [online] *NIH.gov*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK499997/>.
- Ikhlas, M. and Atherton, N.S. (2020). Vascular Reperfusion Injury. [online] *PubMed*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK562210/>.
- Jawabri, K.H. and Cascella, M. (2023). Physiology, Explicit Memory. [online] *PubMed*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK554551/>.
- Krati Chauhan and Huecker, M.R. (2019). Vitamin D. [online] *Nih.gov*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK441912/>.
- Kuriakose, D. and Xiao, Z. (2020). Pathophysiology and treatment of stroke: Present status and future perspectives. *International Journal of Molecular Sciences*, 21(20), p.7609. doi:<https://doi.org/10.3390/ijms21207609>.
- Lavezzi, A.M., Corna, M.F. and Matturri, L. (2013). Neuronal nuclear antigen (NeuN): A useful marker of neuronal immaturity in sudden unexplained perinatal death. *Journal of the Neurological Sciences*, 329(1-2), pp.45–50. doi:<https://doi.org/10.1016/j.jns.2013.03.012>.
- Lee, T.-L., Lee, M.-H., Chen, Y.-C., Lee, Y.-C., Lai, T.-C., Lin, H.Y.-H., et al., (2020). Vitamin D Attenuates Ischemia/Reperfusion-Induced Cardiac Injury by Reducing Mitochondrial Fission and Mitophagy. *Frontiers in Pharmacology*, [online] 11. doi:<https://doi.org/10.3389/fphar.2020.604700>.
- León-Moreno, L.C., Castañeda-Arellano, R., Rivas-Carrillo, J.D. and Dueñas-Jiménez, S.H. (2020). Challenges and Improvements of Developing an

- Ischemia Mouse Model Through Bilateral Common Carotid Artery Occlusion. *Journal of Stroke and Cerebrovascular Diseases*, 29(5), p.104773. doi:<https://doi.org/10.1016/j.jstrokecerebrovasdis.2020.104773>.
- Li, Y. and Zhang, J. (2021). Animal models of stroke. *Animal Models and Experimental Medicine*, 4(3), pp.204–219. doi:<https://doi.org/10.1002/ame2.12179>.
- Matsushima, S., Tsutsui, H. and Sadoshima, J. (2014). Physiological and pathological functions of NADPH oxidases during myocardial ischemia–reperfusion. *Trends in Cardiovascular Medicine*, 24(5), pp.202–205. doi:<https://doi.org/10.1016/j.tcm.2014.03.003>.
- Mayo Clinic. (2023). *Stroke - Symptoms and causes*. [online] Available at: <https://www.mayoclinic.org/diseases-conditions/stroke/symptoms-causes/syc-20350113#:~:text=Strokes%20happen%20in%20two%20ways> [Accessed 12 Dec. 2023].
- Mbbs Pradip Chauhan, Mbbs Kinjal Jethwa, Mbbs Ashish Rathawa, Chauhan, G.R. and Mehra, S. (2021). The Anatomy of the Hippocampus. *Exon Publications eBooks*, [online] pp.17–30. doi:<https://doi.org/10.36255/exonpublications.cerebralischemia.2021.hippocampus>.
- Mujawar, S., Patil, J., Chaudhari, B. and Saldanha, D. (2021). Memory: Neurobiological mechanisms and assessment. *Industrial Psychiatry Journal*, [online] 30(Suppl 1), pp.S311–S314. doi:<https://doi.org/10.4103/0972-6748.328839>.
- Murphy, S.JX. and Werring, D.J. (2020). *Stroke: Causes and Clinical Features*. *Medicine*, [online] 48(9), pp.561–566. doi:<https://doi.org/10.1016/j.mpmed.2020.06.002>.
- National Basic Health research (2020). *Laporan Nasional Riskesdas 2018*. [online] repository.badankebijakan.kemkes.go.id. Jakarta: Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan. Available at: <https://repository.badankebijakan.kemkes.go.id/id/eprint/3514>.
- National Institutes of Health (2023). Vitamin D. [online] *Nih.gov*. Available at: <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/>.
- Narayanaswamy Venketasubramanian, Byung Woo Yoon, Pandian, J. and Navarro, J.C. (2017). Stroke Epidemiology in South, East, and South-East Asia: A Review. *Journal of stroke*, [online] 19(3), pp.286–294. doi:<https://doi.org/10.5853/jos.2017.00234>.
- Olthof, B.M.J., Gartside, S.E. and Rees, A. (2018). Puncta of Neuronal Nitric Oxide Synthase (nNOS) Mediate NMDA Receptor Signaling in the Auditory Midbrain. *The Journal of Neuroscience*, 39(5), pp.876–887. doi:10.1523/jneurosci.1918-18.2018.
- Orsu, P. and Srihari, Y. (2022). *Experimental Animal Models of Cerebral Ischemic Reperfusion Injury*. [online] [www.intechopen.com](http://www.intechopen.com). Available at: <https://www.intechopen.com/chapters/76811> [Accessed 13 Dec. 2023].
- Purves, D., Augustine, G.J., Fitzpatrick, D., Hall, W.C., LaMantia, A.-S., Mooney, R.D., et al., 2018. *Neuroscience. 6th ed.* Oxford University Press, Sunderland.

- Rusinek, H., Mirosław Bryś, Glodzik, L., Switalski, R., Tsui, W.-H., Haas, F., McGorty, K., Chen, Q. and Leon (2010). Hippocampal blood flow in normal aging measured with arterial spin labeling at 3T. *Magnetic Resonance in Medicine*, [online] 65(1), pp.128–137. doi:<https://doi.org/10.1002/mrm.22611>.
- Samdani, A.F., Dawson, T.M. and Dawson, V.L. (1997). Nitric Oxide Synthase in Models of Focal Ischemia. *Stroke*, [online] 28(6), pp.1283–1288. doi:<https://doi.org/10.1161/01.str.28.6.1283>.
- Tadi, P. and Lui, F. (2023). Acute Stroke. [online] *PubMed*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK535369/#:~:text=Acute%20stroke%20can%20be%20categorized>.
- Tatu, L. and Fabrice Vuillier (2014). Structure and Vascularization of the Human Hippocampus. *Frontiers of neurology and neuroscience*, [online] pp.18–25. doi:<https://doi.org/10.1159/000356440>.
- Trivedi, M.K., Branton, A., Trivedi, D., Mondal, S.C. and Jana, S. (2023). Vitamin D3 supplementation improves spatial memory, muscle function, pain score, and modulates different functional physiological biomarkers in vitamin D3 deficiency diet (VDD)-induced rats model. *BMC Nutrition*, 9(1). doi:<https://doi.org/10.1186/s40795-023-00767-0>.
- Torrico, T.J. and Abdijadid, S. (2023). Neuroanatomy, Limbic System. [online] *Nih.gov*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK538491/> [Accessed 6 Dec. 2023].
- Vorhees, C.V. and Williams, M.T. (2014). Assessing Spatial Learning and Memory in Rodents. *ILAR Journal*, 55(2), pp.310–332. doi:<https://doi.org/10.1093/ilar/ilu013>.
- Wang, J., Zhang, P. and Tang, Z. (2020). Animal models of transient ischemic attack: a review. *Acta Neurologica Belgica*, 120(2), pp.267–275. doi:<https://doi.org/10.1007/s13760-020-01295-5>.
- Wang, W., Li, Y. and Meng, X. (2023). Vitamin D and neurodegenerative diseases. *Heliyon*, 9(1), p.e12877. doi:<https://doi.org/10.1016/j.heliyon.2023.e12877>.
- White, T., Cullen, K.R., Lisa Michelle Rohrer, Canan Karatekin, Luciana, M., Schmidt, M., Donaya Hongwanishkul, Sanjiv Kumra, S. Charles Schulz and Lim, K.O. (2007). Limbic Structures and Networks in Children and Adolescents With Schizophrenia. *Schizophrenia Bulletin*, [online] 34(1), pp.18–29. doi:<https://doi.org/10.1093/schbul/sbm110>.
- Wimalawansa, S.J. (2019). Vitamin D Deficiency: Effects on Oxidative Stress, Epigenetics, Gene Regulation, and Aging. *Biology*, 8(2), p.30. doi:<https://doi.org/10.3390/biology8020030>.
- Yang, Y., Kim, S. and Jae Hyoung Kim (2008). Ischemic Evidence of Transient Global Amnesia: Location of the Lesion in the Hippocampus. *The Journal of Clinical Neurology*, [online] 4(2), pp.59–59. doi:<https://doi.org/10.3988/jcn.2008.4.2.59>.
- Zlotnik, G. and Vansintjan, A. (2019). Memory: an Extended Definition. *Frontiers in Psychology*, [online] 10(1664-1078). doi:<https://doi.org/10.3389/fpsyg.2019.02523>.

- Zmijewski, M.A. (2019). Vitamin D and Human Health. *International Journal of Molecular Sciences*, [online] 20(1), p.145.  
doi:<https://doi.org/10.3390/ijms20010145>.
- Zorin, A., Chernyuk, D., Vlasova, O., Bolsunovskaya, M. and Bezprozvanny, I. (2020). Software for analyzing the behavioural test ‘Morris Water Maze’. *E3S Web of Conferences*, 203, p.01029.  
doi:<https://doi.org/10.1051/e3sconf/202020301029>