

Literatur Corona-Strategiepapier

Vitamin D

- Alipio, M. (2020). Vitamin D Supplementation Could Possibly Improve Clinical Outcomes of Patients Infected with Coronavirus-2019 (COVID-2019). *SSRN Electronic Journal*. doi:10.2139/ssrn.3571484
- Dancer, R. C. A., Parekh, D., Lax, S., Dsouza, V., Zheng, S., Bassford, C. R., ... Thickett, D. R. (2015). Vitamin D deficiency contributes directly to the acute respiratory distress syndrome (ARDS). *Thorax*, 70(7), 617–624. doi: 10.1136/thoraxjnl-2014-206680
- D'Avolio, A., Avataneo, V., Manca, A., Cusato, J., Nicolò, A. D., Lucchini, R., . . . Cantù, M. (2020). 25-Hydroxyvitamin D Concentrations Are Lower in Patients with Positive PCR for SARS-CoV-2. *Nutrients*, 12(5), 1359. doi:10.3390/nu12051359
- Ilie, P. C., Stefanescu, S., & Smith, L. (2020). The role of vitamin D in the prevention of coronavirus disease 2019 infection and mortality. *Aging Clinical and Experimental Research*. doi:10.1007/s40520-020-01570-8
- Laird, E. & Rhodes, Jonathan & Kenny, R. (2020). Vitamin D and Inflammation: Potential Implications for Severity of Covid-19. *Irish medical journal*. 113. 81.
- Garland, C. F., Kim, J. J., Mohr, S. B., Gorham, E. D., Grant, W. B., Giovannucci, E. L., . . . Heaney, R. P. (2014). Meta-analysis of All-Cause Mortality According to Serum 25-Hydroxyvitamin D. *American Journal of Public Health*, 104(8). doi:10.2105/ajph.2014.302034
- Gatera, V. A., Abdulah, R., Musfiroh, I., Judistiani, R. T. D., & Setiabudiawan, B. (2018). Updates on the Status of Vitamin D as a Risk Factor for Respiratory Distress Syndrome. *Advances in Pharmacological Sciences*, 2018, 1–6. doi: 10.1155/2018/8494816
- Gilbert, C. R., Arum, S. M., & Smith, C. M. (2009). Vitamin D Deficiency and Chronic Lung Disease. *Canadian Respiratory Journal*, 16(3), 75–80. doi: 10.1155/2009/829130
- Grant, W. B., Lahore, H., McDonnell, S. L., Baggerly, C. A., French, C. B., Aliano, J. L., & Bhattoa, H. P. (2020). Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths. *Nutrients*, 12(4), 988. doi: 10.3390/nu12040988
- Lappe, J., Watson, P., Travers-Gustafson, D., Recker, R., Garland, C., Gorham, E., ... McDonnell, S. L. (2017). *Effect of Vitamin D and Calcium Supplementation on Cancer Incidence in Older Women*. *JAMA*, 317(12), 1234. doi:10.1001/jama.2017.2115
- Malihi, Z., Wu, Z., Stewart, A. W., Lawes, C. M., & Scragg, R. (2016). *Hypercalcemia, hypercalciuria, and kidney stones in long-term studies of vitamin D supplementation: a systematic review and meta-analysis*. *The American Journal of Clinical Nutrition*, 104(4), 1039–1051. doi:10.3945/ajcn.116.134981
- Mccullough, P. J., Lehrer, D. S., & Amend, J. (2019). Daily oral dosing of vitamin D3 using 5000 TO 50,000 international units a day in long-term hospitalized patients: Insights from a seven year experience. *The Journal of Steroid Biochemistry and Molecular Biology*, 189, 228-239. doi:10.1016/j.jsbmb.2018.12.010
- Parekh, D., Thickett, D., & Turner, A. (2013). Vitamin D Deficiency and Acute Lung Injury. *Inflammation & Allergy-Drug Targets*, 12(4), 253–261. doi: 10.2174/18715281113129990049

- Pilz, S., Tomaschitz, A., Pieber, T. R., Lafer, I., Drechsler, C., Meinitzer, A., . . . März, W. (2011). Vitamin D: Clinical implications beyond musculoskeletal diseases/Vitamin D: Klinische Bedeutung bei nicht muskuloskelettalen Erkrankungen. *LaboratoriumsMedizin*, 35(4), 211-216. doi:10.1515/jlm.2011.025
- Rabenberg, M., & Mensink, G. (2016). Vitamin-D-Status in Deutschland. *Journal of Health Monitoring*, 1(2). doi: 10.17886/RKI-GBE-2016-036
- Raharusun, P., Priambada, S., Budiarti, C., Agung, E., & Budi, C. (2020). Patterns of COVID-19 Mortality and Vitamin D: An Indonesian Study. *SSRN Electronic Journal*. doi:10.2139/ssrn.3585561
- Schilling, S. (2012). Epidemic Vitamin D Deficiency Among Patients in an Elderly Care Rehabilitation Facility. *Deutsches Aerzteblatt Online*. doi: 10.3238/arztebl.2012.0033
- Shirvani, A., Kalajian, T. A., Song, A., & Holick, M. F. (2019). Disassociation of Vitamin D's Calcemic Activity and Non-calcemic Genomic Activity and Individual Responsiveness: A Randomized Controlled Double-Blind Clinical Trial. *Scientific Reports*, 9(1). doi:10.1038/s41598-019-53864-1

Vitamin C

- Cheng RZ. Can early and high intravenous dose of vitamin C prevent and treat coronavirus disease 2019 (COVID-19)?. *Med Drug Discov*. 2020;5:100028. doi:10.1016/j.medidd.2020.100028
- Choe, J., & Kim, S. (2017). Quercetin and Ascorbic Acid Suppress Fructose-Induced NLRP3 Inflammasome Activation by Blocking Intracellular Shuttling of TXNIP in Human Macrophage Cell Lines. *Inflammation*, 40(3), 980-994. doi:10.1007/s10753-017-0542-4
- Fisher, B. J., Kraskauskas, D., Martin, E. J., Farkas, D., Wegelin, J. A., Brophy, D., ... Natarajan, R. (2012). Mechanisms of attenuation of abdominal sepsis induced acute lung injury by ascorbic acid. *American Journal of Physiology-Lung Cellular and Molecular Physiology*, 303(1). doi: 10.1152/ajplung.00300.2011
- Patel, V. et al. (2020): Dietary antioxidants significantly attenuate hyperoxia induces acute inflammatory lung injury by enhancing macrophage function via reducing the accumulation of airway HBGB1. *Int. J. M. Sci* 2020, 21(3), 977

Inflammasome NLRP3

- Alvarenga, L., Cardozo, L. F., Borges, N. A., Lindholm, B., Stenvinkel, P., Shiels, P. G., . . . Mafra, D. (2020). Can nutritional interventions modulate the activation of the NLRP3 inflammasome in chronic kidney disease? *Food Research International*, 136, 109306. doi:10.1016/j.foodres.2020.109306
- Chen, X., Zhou, Y., & Yu, J. (2019). Exosome-like Nanoparticles from Ginger Rhizomes Inhibited NLRP3 Inflammasome Activation. *Molecular Pharmaceutics*, 16(6), 2690–2699. doi: 10.1021/acs.molpharmaceut.9b00246
- Grailer, J. J., Canning, B. A., Kalbitz, M., Haggadone, M. D., Dhond, R. M., Andjelkovic, A. V., . . . Ward, P. A. (2014). Critical Role for the NLRP3 Inflammasome during Acute Lung Injury. *The Journal of Immunology*, 192(12), 5974-5983. doi:10.4049/jimmunol.1400368
- Ho, S. C., & Chang, Y. H. (2018). Comparison of Inhibitory Capacities of 6-, 8- and 10-Gingerols/Shogaols on the Canonical NLRP3 Inflammasome-Mediated IL-1 β Secretion. *Molecules*, 23(2), 466. doi: 10.3390/molecules23020466
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., . . . Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*, 395(10223), 497-506. doi:10.1016/s0140-6736(20)30183-5

- Lee, K. R., Midgette, Y., & Shah, R. (2018). Fish Oil Derived Omega 3 Fatty Acids Suppress Adipose NLRP3 Inflammasome Signaling in Human Obesity. *Journal of the Endocrine Society*, 3(3), 504-515. doi:10.1210/js.2018-00220
- Shah, A. (2020). Novel Coronavirus-Induced NLRP3 Inflammasome Activation: A Potential Drug Target in the Treatment of COVID-19. *Frontiers in Immunology*, 11. doi:10.3389/fimmu.2020.01021
- Soy, M., Keser, G., Atagündüz, P., Tabak, F., Atagündüz, I., & Kayhan, S. (2020). Cytokine storm in COVID-19: Pathogenesis and overview of anti-inflammatory agents used in treatment. *Clinical Rheumatology*. doi:10.1007/s10067-020-05190-5
- Tózsér, J., & Benkő, S. (2016). Natural Compounds as Regulators of NLRP3 Inflammasome-Mediated IL-1 β Production. *Mediators of Inflammation*, 2016, 1–16. doi: 10.1155/2016/5460302
- Yao, Y., Mao, J., Xu, S., Zhao, L., Long, L., Chen, L., ... Lu, S. (2018). Rosmarinic acid inhibits nicotine-induced C-reactive protein generation by inhibiting NLRP3 inflammasome activation in smooth muscle cells. *Journal of Cellular Physiology*, 234(2), 1758–1767. doi: 10.1002/jcp.27046
- Zhao, C., & Zhao, W. (2020). NLRP3 Inflammasome—A Key Player in Antiviral Responses. *Frontiers in Immunology*, 11. doi:10.3389/fimmu.2020.00211

NO

- Mao, K., Chen, S., Chen, M., Ma, Y., Wang, Y., Huang, B., ... Sun, B. (2013). Nitric oxide suppresses NLRP3 inflammasome activation and protects against LPS-induced septic shock. *Cell Research*, 23(2), 201–212. doi: 10.1038/cr.2013.6
- Morita, M., Hayashi, T., Ochiai, M., Maeda, M., Yamaguchi, T., Ina, K., & Kuzuya, M. (2014). Oral supplementation with a combination of L-citrulline and L-arginine rapidly increases plasma L-arginine concentration and enhances NO bioavailability. *Biochemical and Biophysical Research Communications*, 454(1), 53–57. doi: 10.1016/j.bbrc.2014.10.029