

























- with nigella arvensis aqueous extract, *Egy J Chem* 2023, 66: 209-223. DOI: <https://doi.org/10.21608/EJCHEM.2022.159976.6894>
14. Zhang Y, Li J, Ni Y, Wang Y, Liu H, Correlational study on the levels of 25-hydroxyvitamin D and non-alcoholic fatty liver disease in type 2 diabetic patients, *BMC End Dis* 2021, 21: 1-8. DOI: <https://doi.org/10.1186/s12902-021-00762-1>
15. Nagao M, Lagerstedt JO, Eliasson L, Secretory granule exocytosis and its amplification by cAMP in pancreatic  $\beta$ -cells, *Diabetol Int* 2022, 13: 471-479. DOI: <https://doi.org/10.1007/s13340-022-00580-3>
16. Zhang S, Miller DD, Li W, Non-musculoskeletal benefits of vitamin D beyond the musculoskeletal system, *Int J Mol Sci* 2021, 22: 2128. DOI: <https://doi.org/10.3390/ijms22042128>
17. Association AD, Diagnosis and classification of diabetes mellitus, *Diabetes care* 2013, 36: S67. DOI: <https://doi.org/10.2337/dc13-S067>
18. Matthews DR, Hosker J, Rudenski A, Naylor B, Treacher D, Turner R, Homeostasis model assessment: insulin resistance and  $\beta$ -cell function from fasting plasma glucose and insulin concentrations in man, *Diabetologia* 1985, 28: 412-419. DOI: <https://doi.org/10.1007/BF00280883>
19. Angulo P, Hui JM, Marchesini G, Bugianesi E, George J, Farrell GC, Enders F, Saksena S, Burt AD, Bida JP, The NAFLD fibrosis score: a noninvasive system that identifies liver fibrosis in patients with NAFLD, *Hepatology* 2007, 45: 846-854. DOI: <https://doi.org/10.1002/hep.21496>
20. Kaya E, Bakir A, Kani HT, Demirtas CO, Keklikkiran C, Yilmaz Y, Simple noninvasive scores are clinically useful to exclude, not predict, advanced fibrosis: a study in Turkish patients with biopsy-proven nonalcoholic fatty liver disease, *Gut liver* 2020, 14: 486. DOI: <https://doi.org/10.5009/gnl19173>
21. Harrison SA, Oliver D, Arnold HL, Gogia S, Neuschwander-Tetri BA, Development and validation of a simple NAFLD clinical scoring system for identifying patients without advanced disease, *Gut* 2008, 57: 1441-1447. DOI: <https://doi.org/10.1136/gut.2007.146019>
22. McPherson S, Stewart SF, Henderson E, Burt AD, Day CP, Simple non-invasive fibrosis scoring systems can reliably exclude advanced fibrosis in patients with non-alcoholic fatty liver disease, *Gut* 2010, 59: 1265-1269. DOI: <https://doi.org/10.1136/gut.2010.216077>
23. El-Sheshtawy HS, Mahdy HM, Sofy AR, Sofy MR, Production of biosurfactant by *Bacillus megaterium* and its correlation with lipid peroxidation of *Lactuca sativa*, *Egy J Petrol* 2022, 31: 1-6. DOI: <https://doi.org/10.1016/j.ejpe.2022.03.001>
24. Chi Z, Research progress on the correlation between metabolic-associated fatty liver disease and metabolic diseases, *Gastroenterol Hepatol Res* 2022, 4: 9. DOI: <https://doi.org/10.53388/ghr2022-06-051>
25. Xiu L, Jiang T, Yao X-a, Wen Z, Correlation between 25 Hydroxyvitamin D levels and nonalcoholic fatty liver disease in Chinese patients with type 2 diabetes mellitus: a cross-sectional study, *Int J General Med* 2021, 14: 3099. DOI: <https://doi.org/10.2147/IJGM.S319449>
26. Barchetta I, Cimini FA, Cavallo MG, Vitamin D and metabolic dysfunction-associated fatty liver disease (MAFLD): an update, *Nutrients* 2020, 12: 3302. DOI: <https://doi.org/10.3390/nu12113302>
27. Cai J, Zhang Z, Liu J, Xiao X, Wang C, Deng M, Chen L, Correlation between serum 25-OH vitamin D expression and non-alcoholic fatty liver disease, *Experimental and Therap Med* 2020, 19: 1681-1686. DOI: <https://doi.org/10.3892/etm.2020.8411>
28. Chen Y, Feng S, Chang Zg, Zhao Y, Liu Y, Fu J, Liu Y, Tang S, Han Y, Zhang S, Higher serum 25-hydroxyvitamin D is associated with lower all-cause and cardiovascular mortality among US adults with nonalcoholic fatty liver disease, *Nutrients* 2022, 14: 4013. DOI: <https://doi.org/10.3390/nu14194013>
29. Hosny SS, Ali HM, Mohammed WA, El Ghannam MH, Study of relationship between total vitamin D level and NAFLD in a sample of Egyptian patients with and without T2DM, *Diabetes and Metabolic Syndrome: Clinical Res Rev* 2019, 13: 1769-1771. DOI: <https://doi.org/10.1016/j.dsx.2019.04.002>
30. Gomes TL, Fernandes RC, Vieira LL, Schincaglia RM, Mota JF, Nóbrega MS, Pichard C, Pimentel GD, Low vitamin D at ICU admission is associated with cancer, infections, acute respiratory insufficiency, and liver failure, *Nutrition* 2019, 60: 235-240. DOI: <https://doi.org/10.1016/j.nut.2018.10.018>
31. Feldman D, Krishnan AV, Swami S, Giovannucci E, Feldman BJ, The role of vitamin D in reducing cancer risk and progression, *Nature Rev cancer* 2014, 14: 342-357. DOI: <https://doi.org/10.1038/nrc3691>
32. Hussein RR, Shaman MB, Shaaban AH, Fahmy AM, Sofy MR, Lattyak EA, Abuelhana A, Naguib IA, Ashour AM, Aldeyab MA, Antibiotic consumption in hospitals during COVID-19

- pandemic: a comparative study, *J Infec Devel Count* 2022, 16: 1679-1686. DOI: <https://doi.org/10.3855/jidc.17148>
33. Küçükazman M, Ata N, Dal K, Yeniova AÖ, Kefeli A, Basyigit S, Aktas B, Akin KO, Ağladioğlu K, Üre ÖS, The association of vitamin D deficiency with non-alcoholic fatty liver disease, *Clinics* 2014, 69: 542-546. DOI: [https://doi.org/10.6061/clinics/2014\(08\)07](https://doi.org/10.6061/clinics/2014(08)07)
  34. Gad AI, Elmedames MR, Abdelhai AR, Marei AM, The association between vitamin D status and non-alcoholic fatty liver disease in adults: a hospital-based study, *Egy Liver J* 2020, 10: 1-8. DOI: <https://doi.org/10.1186/s43066-020-00033-z>
  35. Barchetta I, Angelico F, Ben MD, Baroni MG, Pozzilli P, Morini S, Cavallo MG, Strong association between non alcoholic fatty liver disease (NAFLD) and low 25 (OH) vitamin D levels in an adult population with normal serum liver enzymes, *BMC Med* 2011, 9: 1-7. DOI: <https://doi.org/10.1186/1741-7015-9-85>
  36. Rajendra VKP, Kurapati S, Balineni SK, Gogineni NTT, A blend of *Sphaeranthus indicus* flower head and *Terminalia chebula* fruit extracts reduces fatty liver and improves liver function in non-alcoholic, overweight adults, *Functional Foods in Health and Disease* 2022, 12: 361-179. DOI: <https://doi.org/10.31989/ffhd.v12i7.958>
  37. Qian X, He S, Wang J, Gong Q, An Y, Li H, Chen Y, Li G, Prediction of 10-year mortality using hs-CRP in Chinese people with hyperglycemia: findings from the Da Qing diabetes prevention outcomes study, *Diabetes Research and Clinical Practice* 2021, 173: 108668. DOI: <https://doi.org/10.1186/s43066-020-00033-z>