References

In this guide

Alok, A., Singh, I.D., Singh, S., Kishore, M., Jha, P.C., 2015. Curcumin – Pharmacological Actions And its Role in Oral Submucous Fibrosis: A Review. J Clin Diagn Res 9, ZE01–ZE03. https://doi.org/10.7860/JCDR/2015/13857.6552

Amalraj, A., Varma, K., Jacob, J., Kuttappan, S., 2021. Efficacy and safety of a gut health product (Actbiome) prepared by incorporation of asafoetida-curcumin complex onto the turmeric dietary fiber in the management of gut health and intestinal microflora in healthy subjects: A randomized, double-blind, placebo controlled study. Bioactive Carbohydrates and Dietary Fibre 26, 100280. https://doi.org/10.1016/j.bcdf.2021.100280

American Academy of Allergy Asthma & Immunology, 2020. Medications and Drug Allergic Reactions. Medications and Drug Allergic Reactions | AAAAI

Ammon, H.P., Wahl, M.A., 1991. Pharmacology of Curcuma longa. Planta Med 57, 1–7. https://doi.org/10.1055/s-2006-960004

ANSES (AGENCE NATIONALE DE SÉCURITÉ SANITAIRE de l'alimentation, de l'environnement et du travail), 2022. L'évaluation des risques liés à la consommation de compléments alimentaires contenant du curcuma. AVIS révisé de l'Anses relatif à l'évaluation des risques relatifs à la consommation de compléments alimentaires contenant du curcuma

Apica, B.S., Lee, W.M., 2014. Drug-Induced Liver Injury, in: McManus, L.M., Mitchell, R.N. (Eds.), Pathobiology of Human Disease. Academic Press, San Diego, pp. 1825–1837. https://doi.org/10.1016/B978-0-12-386456-7.04208-8

Appelboom, T., Maes, N., Albert, A., 2014. A New Curcuma Extract (Flexofytol®) in Osteoarthritis: Results from a Belgian Real-Life Experience. Open Rheumatol J 8, 77–81. https://doi.org/10.2174/1874312901408010077

Bano, G., Raina, R.K., Zutshi, U., Bedi, K.L., Johri, R.K., Sharma, S.C., 1991. Effect of piperine on bioavailability and pharmacokinetics of propranolol and theophylline in healthy volunteers. European Journal of Clinical Pharmacology 41, 615–617. https://doi.org/10.1007/BF00314996

Bejar Ezra, 2018. Adulteration of turmeric (Curcuma longa) root and rhizome, and root and rhizome extracts. Botanical Adulterants Bulletin, 2018 (abstract only).

BfR (Federal Institute for Risk Assessment), 2003. Dyes Sudan I to IV in food.

WHO_TRS_859.pdf

Braga, M.E.M., Leal, P.F., Carvalho, J.E., Meireles, M.A.A., 2003. Comparison of Yield, Composition, and Antioxidant Activity of Turmeric (Curcuma longa L.) Extracts Obtained Using Various Techniques. J. Agric. Food Chem. 51, 6604–6611. https://doi.org/10.1021/jf0345550

Chavalittumrong, P., Chivapat, S., Rattanajarasroj, S., Punyamong, S., Chuthaputti, A., Phisalaphong, C., 2002. Chronic toxicity study of curcuminoids in rats. The Songklanakarin Journal of Science and Technology 24, 16.

Chen, S., Li, Q., McClements, D.J., Han, Y., Dai, L., Mao, L., Gao, Y., 2020. Co-delivery of curcumin and piperine in zein-carrageenan core-shell nanoparticles: Formation, structure, stability and in vitro gastrointestinal digestion. Food Hydrocolloids 99, 105334. https://doi.org/10.1016/j.foodhyd.2019.105334

Chu, W, 2019. Belgium recall same curcumin-based supplement linked to Italian hepatitis cases. Belgium recall same curcumin-based supplement linked to Italian hepatitis cases

COT, 2013. Statement on the potential risks from lead in the infant diet. [ARCHIVED CONTENT] UK Government Web Archive - The National Archives

Cowell, W., Ireland, T., Vorhees, D., Heiger-Bernays, W., 2017. Ground Turmeric as a Source of Lead Exposure in the United States. Public Health Rep 132, 289–293. https://doi.org/10.1177/0033354917700109

Daniells, S, 2022. Italy prohibits all health claims linked to turmeric, issues warning for labels. Italy prohibits all health claims linked to turmeric, issues warning for labels

Dhakal, S., Schmidt, W.F., Kim, M., Tang, X., Peng, Y., Chao, K., 2019. Detection of Additives and Chemical Contaminants in Turmeric Powder Using FT-IR Spectroscopy. Foods 8, E143. https://doi.org/10.3390/foods8050143

Dhanya, K., Syamkumar, S., Siju, S., Sasikumar, B., 2011. Sequence characterized amplified region markers: A reliable tool for adulterant detection in turmeric powder. Food Research International 44, 2889–2895. https://doi.org/10.1016/j.foodres.2011.06.040

Di, X., Wang, X., Di, X., Liu, Y., 2015. Effect of piperine on the bioavailability and pharmacokinetics of emodin in rats. Journal of Pharmaceutical and Biomedical Analysis 115, 144–149. https://doi.org/10.1016/j.jpba.2015.06.027

Dixit, S., Khanna, S.K., Das, M., 2008. ASimple 2-Directional High-Performance Thin-Layer Chromatographic Method for the Simultaneous Determination of Curcumin, Metanil Yellow, and Sudan Dyes in Turmeric, Chili, and Curry Powders. Journal of AOAC INTERNATIONAL 91, 1387–1396. https://doi.org/10.1093/jaoac/91.6.1387

Dixit, S., Purshottam, S.K., Khanna, S.K., Das, M., 2009. Surveillance of the quality of turmeric powders from city markets of India on the basis of curcumin content and the presence of extraneous colours. Food Additives & Contaminants: Part A 26, 1227–1231. https://doi.org/10.1080/02652030903016586

EC, 2008. Commission Directive 2008/128/EC of 22 December 2008 laying down specific purity criteria concerning colours for use in foodstuffs (Codified version) (Text with EEA relevance), OJ L. Directive - 2008/128 - EN - EUR-Lex

EC, 1994. EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 94/36/EC of 30 June 1994 on colours for use in foodstuffs. eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31994L0036&from=EN

EFSA, 2005. Opinion of the Scientific Panel on food additives, flavourings, processing aids and materials in contact with food (AFC) to review the toxicology of a number of dyes illegally present in food in the EU. EFSA Journal. https://doi.org/10.2903/j.efsa.2005.263

EFSA Panel on Contaminants in the Food Chain (CONTAM), 2010. Scientific Opinion on Lead in Food. EFS2 8. https://doi.org/10.2903/j.efsa.2010.1570

EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS), 2010. Scientific Opinion on the re-evaluation of curcumin (E 100) as a food additive. EFS2 8. https://doi.org/10.2903/j.efsa.2010.1679

EFSA, 2014. Refined exposure assessment for curcumin (E 100). EFSA Journal, 12: 10, 3876. https://doi.org/10.2903/j.efsa.2014.3876

Fança-Berthon, P., Tenon, M., Bouter-Banon, S.L., Manfré, A., Maudet, C., Dion, A., Chevallier, H., Laval, J., van Breemen, R.B., 2021. Pharmacokinetics of a Single Dose of Turmeric Curcuminoids Depends on Formulation: Results of a Human Crossover Study. The Journal of Nutrition 151, 1802–1816. https://doi.org/10.1093/jn/nxab087

FAO/WHO, 1995. Evaluation of certain food additives and naturally occurring toxicants (Fourty-fourth report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 859.

FAO/WHO, 2004a. Evaluation of certain food additives and contaminants. Sixty-first report of the Joint FAO/WHO Expert Committee on Food Additives. WHO Technical Report Series 922. IRIS Home

FAO/WHO, 2004b. Curcumin Chemical and Technical Assessment. Microsoft Word - 2004-02-24 CTA 61 Curcumin.doc

FAO/WHO, 2017. Safety evaluation of certain food additives: prepared by the eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA), World Health Organization, Geneva. Safety evaluation of certain food additives: prepared by the eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA)

FAO/WHO, 2011. Safety evaluation of certain food additives and contaminants, The 74th Meeting of the Joint FAO WHO Expert Committee on Food Additives. WHO, Geneva. Compendium of Food Additive Specifications - Joint FAO/WHO Expert Committee on Food Additives (JECFA) 74th Meeting 2011. FAO JECFA

Monographs 11

Fera Science Ltd, 2022. Turmeric survey for the FSA (FS430403). https://doi.org/10.46756/sci.fsa.ojv940

Ferrell, L., 2000. Liver Pathology: Cirrhosis, Hepatitis, and Primary Liver Tumors. Update and Diagnostic Problems. Mod. Pathol. 13, 679–704. https://doi.org/10.1038/modpathol.3880119

Forsyth, J.E., Nurunnahar, S., Islam, S.S., Baker, M., Yeasmin, D., Islam, M.S., Rahman, M., Fendorf, S., Ardoin, N.M., Winch, P.J., Luby, S.P., 2019. Turmeric means “yellow” in Bengali: Lead chromate pigments added to turmeric threaten public health across Bangladesh. Environmental Research 179, 108722. https://doi.org/10.1016/j.envres.2019.108722

Funk, J.L., Frye, J.B., Oyarzo, J.N., Zhang, H., Timmermann, B.N., 2010. Anti-Arthritic Effects and Toxicity of the Essential Oils of Turmeric (Curcuma longa L.). J Agric Food Chem 58, 842–849. https://doi.org/10.1021/jf9027206

Grand View Research (2022). Curcumin Market Size, Share & Trends Report By Application (Pharmaceutical, Food, Cosmetics), By Region (North America, Europe, Asia Pacific, CSA, MEA), And Segment Forecasts, 2020 - 2028. Curcumin Market Size & Share Analysis Report, 2028

Gupta, S.C., Patchva, S., Aggarwal, B.B., 2012. Therapeutic Roles of Curcumin: Lessons Learned from Clinical Trials. AAPS J 15, 195–218. https://doi.org/10.1208/s12248-012-9432-8

Halegoua-DeMarzio, D., Navarro, V., Ahmad, J., Avula, B., Barnhart, H., Barritt, A.S., Bonkovsky, H.L., Fontana, R.J., Ghabril, M.S., Hoofnagle, J.H., Khan, I.A., Kleiner, D.E., Phillips, E., Stolz, A., Vuppalanchi, R., 2022. Liver Injury Associated with Turmeric–a Growing Problem: Ten Cases from the Drug-Induced Liver Injury Network [DILIN]. The American Journal of Medicine. https://doi.org/10.1016/j.amjmed.2022.09.026

Haroyan, A., Mukuchyan, V., Mkrtchyan, N., Minasyan, N., Gasparyan, S., Sargsyan, A., Narimanyan, M., Hovhannisyan, A., 2018. Efficacy and safety of curcumin and its combination with boswellic acid in osteoarthritis: a comparative, randomized, double-blind, placebo-controlled study. BMC Complementary and Alternative Medicine 18, 7. https://doi.org/10.1186/s12906-017-2062-z

He, Y., Li, W., Hu, G., Sun, H., Kong, Q., 2018. Bioactivities of EF24, a Novel Curcumin Analog: A Review. Frontiers in Oncology 8. Frontiers | Bioactivities of EF24, a Novel Curcumin Analog: A Review

Heger, M., Golen, R.F. van, Broekgaarden, M., Michel, M.C., 2014. The Molecular Basis for the Pharmacokinetics and Pharmacodynamics of Curcumin and Its Metabolites in Relation to Cancer. Pharmacol Rev 66, 222–307. https://doi.org/10.1124/pr.110.004044

Hogan, G.K. and Knezevich, A.L., 1982a. Long-term dietary toxicity/carcinogenicity study of D&C Yellow #10 in rats. Bio/dynamics Inc. Project no. 77-1884. Submitted by International Association of Color Manufacturers (IACM) to WHO, January 2016.

Hogan, G.K. and Knezevich, A.L., 1982b. Long-term dietary toxicity/carcinogenicity study of D&C Yellow #10 in rats, Bio/dynamics Inc. Project No. 78-2163. Submitted by International Association of Color Manufacturers (IACM) to WHO, January 2016.

Ireson, C.R., Jones, D.J.L., Orr, S., Coughtrie, M.W.H., Boocock, D.J., Williams, M.L., Farmer, P.B., Steward, W.P., Gescher, A.J., 2002. Metabolism of the Cancer Chemopreventive Agent Curcumin in Human and Rat Intestine. Cancer Epidemiol Biomarkers Prev 11, 105–111.

Jamwal, R., 2018. Bioavailable curcumin formulations: A review of pharmacokinetic studies in healthy volunteers. Journal of Integrative Medicine 16, 367–374. https://doi.org/10.1016/j.joim.2018.07.001

Ji, H., Tang, J., Li, M., Ren, J., Zheng, N., Wu, L., 2016. Curcumin-loaded solid lipid nanoparticles with Brij78 and TPGS improved in vivo oral bioavailability and in situ intestinal absorption of curcumin. Drug Delivery 23, 459–470. https://doi.org/10.3109/10717544.2014.918677

Joober, R., Schmitz, N., Annable, L., Boksa, P., 2012. Publication bias: What are the challenges and can they be overcome? J Psychiatry Neurosci 37, 149–152. https://doi.org/10.1503/jpn.120065

Khajeh Pour, S., Blanton, C., Ghimire, B., Aghazadeh-Habashi, A., 2023. Development of a rapid, sensitive, and selective LC-MS/MS method for quantifying curcumin levels in healthy human urine: Effect of pepper on curcumin bioavailability. Food Sci Nutr 11, 7732–7741. https://doi.org/10.1002/fsn3.3691

Kanai, M., Yoshimura, K., Asada, M., Imaizumi, A., Suzuki, C., Matsumoto, S., Nishimura, T., Mori, Y., Masui, T., Kawaguchi, Y., Yanagihara, K., Yazumi, S., Chiba, T., Guha, S., Aggarwal, B.B., 2011. A phase I/II study of gemcitabine-based chemotherapy plus curcumin for patients with gemcitabine-resistant pancreatic cancer. Cancer Chemother Pharmacol 68, 157–164. https://doi.org/10.1007/s00280-010-1470-2

Kaplowitz, N., 2005. Idiosyncratic drug hepatotoxicity. Nat Rev Drug Discov 4, 489–499. https://doi.org/10.1038/nrd1750

Khajuria, A., Thusu, N., Zutshi, U., 2002. Piperine modulates permeability characteristics of intestine by inducing alterations in membrane dynamics: Influence on brush border membrane fluidity, ultrastructure and enzyme kinetics. Phytomedicine 9, 224–231. https://doi.org/10.1078/0944-7113-00114

Lakshmi, S., Padmaja, G., Remani, P., 2011. Antitumour Effects of Isocurcumenol Isolated from Curcuma zedoaria Rhizomes on Human and Murine Cancer Cells. International Journal of Medicinal Chemistry 2011, e253962. https://doi.org/10.1155/2011/253962

Lambert, J.D., Hong, J., Kim, D.H., Mishin, V.M., Yang, C.S., 2004. Piperine enhances the bioavailability of the tea polyphenol (-)-epigallocatechin-3-gallate in mice. J Nutr 134, 1948–1952. https://doi.org/10.1093/jn/134.8.1948

Latif, M.A., Morris, T.R., Miah, A.H., Hewitt, D., Ford, J.E., 1979. Toxicity of shoti (Indian arrowroot: Curcuma zedoaria) for rats and chicks. Br J Nutr 41, 57–63. https://doi.org/10.1079/bjn19790012

Li Shiyou, Yuan Wei, Deng Guangrui, Wang Ping, Yang Peiying,, Aggarwal Bharat, 2011. Chemical Composition and Product Quality Control of Turmeric (Curcuma longa L.). TOPHARMCJ 5, 28–54. https://doi.org/10.2174/2210290601102010028

Liu, Z., Smart, J.D., Pannala, A.S., 2020. Recent developments in formulation design for improving oral bioavailability of curcumin: A review. Journal of Drug Delivery Science and Technology 60, 102082. https://doi.org/10.1016/j.jddst.2020.102082

Lopes-Rodrigues, V., Sousa, E., Vasconcelos, M.H., 2016. Curcumin as a Modulator of P-Glycoprotein in Cancer: Challenges and Perspectives. Pharmaceuticals (Basel) 9, 71. https://doi.org/10.3390/ph9040071

Luber, R.P., Rentsch, C., Lontos, S., Pope, J.D., Aung, A.K., Schneider, H.G., Kemp, W., Roberts, S.K., Majeed, A., 2019. Turmeric Induced Liver Injury: A Report of Two Cases. Case Reports Hepatol 2019, 6741213. https://doi.org/10.1155/2019/6741213

Lukefahr, A.L., McEvoy, S., Alfafara, C., Funk, J.L., 2018. Drug-induced autoimmune hepatitis associated with turmeric dietary supplement use. BMJ Case Reports bcr-2018-224611. https://doi.org/10.1136/bcr-2018-224611

Mimica, B., Bučević Popović, V., Banjari, I., Jeličić Kadić, A., Puljak, L., 2022. Methods Used for Enhancing the Bioavailability of Oral Curcumin in Randomized Controlled Trials: A Meta-Research Study. Pharmaceuticals 15, 939. https://doi.org/10.3390/ph15080939

Nagaraja, T.N., Desiraju, T., 1993. Effects of chronic consumption of metanil yellow by developing and adult rats on brain regional levels of noradrenaline, dopamine and serotonin, on acetylcholine esterase activity and on operant conditioning. Food and Chemical Toxicology 31, 41–44. https://doi.org/10.1016/0278-6915(93)90177-Z

Nakagawa, Y., Mori, K., Yamada, S., Mukai, S., Hirose, A., Nakamura, R., 2022. The Oral Administration of Highly-Bioavailable Curcumin for One Year Has Clinical and Chondro-Protective Effects: A Randomized, Double-Blinded, Placebo-Controlled Prospective Study. Arthroscopy, Sports Medicine, and Rehabilitation 4, e393–e402. https://doi.org/10.1016/j.asmr.2021.10.016

Nisa, A., Zahra, N., B., Y., 2016. Sudan dyes and their potential health effects. Pakistan Journal of biochemistry and molecular biology 49, 29–35.

Olojede, A.O., Nwokocha, C.C., Akinpelu, A.O., Dalyop, T., 2009. Effect of Variety, Rhizome and Seed Bed Types on Yield of Turmeric (Curcuma longa L) under a Humid Tropical Agro-Ecology 3. Advances in Biological Research 3 (1-2): 40-42. https://www.idosi.org/abr/3(1-2)/8.pdf

Pan, H., Feng, J., He, G.-X., Cerniglia, C.E., Chen, H., 2012. Evaluation of impact of exposure of Sudan azo dyes and their metabolites on human intestinal bacteria. Anaerobe 18, 445–453. https://doi.org/10.1016/j.anaerobe.2012.05.002

Pancholi, V., Smina, T.P., Kunnumakkara, A.B., Maliakel, B., Krishnakumar, I.M., 2021. Safety assessment of a highly bioavailable curcumin-galactomannoside complex (CurQfen) in healthy volunteers, with a special reference to the recent hepatotoxic reports of curcumin supplements: A 90-days prospective study.

Toxicology Reports 8, 1255–1264. https://doi.org/10.1016/j.toxrep.2021.06.008

Petracca, M., Quarantelli, M., Moccia, M., Vacca, G., Satelliti, B., D'Ambrosio, G., Carotenuto, A., Ragucci, M., Assogna, F., Capacchione, A., Lanzillo, R., Morra, V.B., 2021. ProspeCtive study to evaluate efficacy, safety and tolerability of dietary supplemeNT of Curcumin (BCM95) in subjects with Active relapsing MultIple Sclerosis treated with subcutaNeous Interferon beta 1a 44 mcg TIW (CONTAIN): A randomized, controlled trial. Multiple Sclerosis and Related Disorders 56, 103274. https://doi.org/10.1016/j.msard.2021.103274

Pfeiffer, E., Höhle, S., Solyom, A.M., Metzler, M., 2003. Studies on the stability of turmeric constituents. Journal of Food Engineering 56, 257–259.

Rao, S.N., Vennapusa, C.S.R., Patel, S., Meti, S., Huggar, B., 2021. Determination of banned adulterants in turmeric and chilli powders using ultra-high-performance liquid chromatography. Journal of Liquid Chromatography & Related Technologies 44, 235–243. https://doi.org/10.1080/10826076.2021.1891933

Ravindranath, V., Chandrasekhara, N., 1981. Metabolism of curcumin--studies with [3H]curcumin. Toxicology 22, 337–344. https://doi.org/10.1016/0300-483x(81)90027-5

Sasikumar, B., 2019. Advances in adulteration and authenticity testing of turmeric (Curcuma longa L.). J Spices Arom Crops 96–105. https://doi.org/10.25081/josac.2019.v28.i2.6072

Sasikumar, B., 2005. Genetic resources of Curcuma: diversity, characterization and utilization. Plant Genetic Resources 3, 230–251. https://doi.org/10.1079/PGR200574

Sasikumar, B., Syamkumar, S., Remya, R., John Zachariah, T., 2004. PCR Based Detection of Adulteration in the Market Samples of Turmeric Powder. Food Biotechnology 18, 299–306. https://doi.org/10.1081/FBT-200035022

Saxena, B., Sharma, S., 2015. Food Color Induced Hepatotoxicity in Swiss Albino Rats, Rattus norvegicus. Toxicol Int 22, 152–157. https://doi.org/10.4103/0971-6580.172286

SCF (Scientific Committee for Food), 1975. Reports from the Scientific Committee for Food (1st series), opinion expressed 27 June 1975. REPORTS OF THE SCIENTIFIC COMMITTEE FOR FOOD : First series

Shen, L., Ji, H.-F., 2012. The pharmacology of curcumin: is it the degradation products? Trends Mol Med 18, 138–144. https://doi.org/10.1016/j.molmed.2012.01.004

Shoba, G., Joy, D., Joseph, T., Majeed, M., Rajendran, R., Srinivas, P.S., 1998. Influence of piperine on the pharmacokinetics of curcumin in animals and human volunteers. Planta Med 64, 353–356. https://doi.org/10.1055/s-2006-957450

Sterzi, S., Giordani, L., Morrone, M., Lena, E., Magrone, G., Scarpini, C., Milighetti, S., Pellicciari, L., Bravi, M., Panni, I., Ljoka, C., Bressi, F., Foti, C., 2016. The efficacy and safety of a combination of glucosamine hydrochloride, chondroitin sulfate and bio-curcumin with exercise in the treatment of knee osteoarthritis: a randomized, double-blind, placebo-controlled study. Eur J Phys Rehabil Med 52, 321–330.

Stohs, S.J., Chen, O., Ray, S.D., Ji, J., Bucci, L.R., Preuss, H.G., 2020. Highly Bioavailable Forms of Curcumin and Promising Avenues for Curcumin-Based Research and Application: A Review. Molecules 25, 1397. https://doi.org/10.3390/molecules25061397

Suhail, F.K., Masood, U., Sharma, A., John, S., Dhamoon, A., 2020. Turmeric supplement induced hepatotoxicity: a rare complication of a poorly regulated substance. Clin Toxicol (Phila) 58, 216–217. https://doi.org/10.1080/15563650.2019.1632882

Thanawala, S., Shah, R., Doyle, L., Upadhyay, V., 2024. Comparative Pharmacokinetics of Curcuminoids from Water-Dispersible Turmeric Extract Against a Curcuminoids-Piperine Combination: An Open-Label, Randomized, Balanced, 2-Treatment, 2-Sequence, 2-Period Crossover Study. Altern Ther Health Med 30, 18–23. (abstract only).

Tsuda, S., Matsusaka, N., Madarame, H., Ueno, S., Susa, N., Ishida, K., Kawamura, N., Sekihashi, K., Sasaki, Y.F., 2000. The comet assay in eight mouse organs: results with 24 azo compounds. Mutation Research/Genetic Toxicology and Environmental Mutagenesis 465, 11–26. https://doi.org/10.1016/S1383-5718(99)00199-0

Tullberg, S.C., Keene, W.E., Walton, K., Rakkar, P., Toor, M. and Renwick, A.G., 2004. Biomarkers, toxicokinetics and default uncertainty factors, Project Number – T01017 FSA. Studies on curcumin. pp 30-40. [ARCHIVED CONTENT] Food Standards Agency Report Repository::Search results page

Ullah, A., Chan, M.W.H., Aslam, S., Khan, A., Abbas, Q., Ali, Shamsher, Ali, M., Hussain, A., Mirani, Z.A., Sibt-e-Hassan, S., Kazmi, M.R., Ali, Shaukat, Hussain, S., Khan, A.M., 2022. Banned Sudan dyes in spices available at markets in Karachi, Pakistan. null 1–9. https://doi.org/10.1080/19393210.2022.2100489

Wahlström, B., Blennow, G., 1978. A study on the fate of curcumin in the rat. Acta Pharmacol Toxicol (Copenh) 43, 86–92. https://doi.org/10.1111/j.1600-0773.1978.tb02240.x

Wang, R., Han, J., Jiang, A., Huang, R., Fu, T., Wang, L., Zheng, Q., Li, W., Li, J., 2019. Involvement of metabolism-permeability in enhancing the oral bioavailability of curcumin in excipient-free solid dispersions co-formed with piperine. International Journal of Pharmaceutics 561, 9–18. https://doi.org/10.1016/j.ijpharm.2019.02.027

WHO, 2022. Lead poisoning. Lead poisoning

Yang, K.-Y., Lin, L.-C., Tseng, T.-Y., Wang, S.-C., Tsai, T.-H., 2007. Oral bioavailability of curcumin in rat and the herbal analysis from Curcuma longa by LC-MS/MS. J Chromatogr B Analyt Technol Biomed Life Sci 853, 183–189. https://doi.org/10.1016/j.jchromb.2007.03.010

Zhou, L., Zhang, K., Li, J., Cui, X., Wang, A., Huang, S., Zheng, S., Lu, Y., Chen, W., 2013. Inhibition of vascular endothelial growth factor-mediated angiogenesis involved in reproductive toxicity induced by sesquiterpenoids of Curcuma zedoaria in rats. Reprod Toxicol 37, 62–69. https://doi.org/10.1016/j.reprotox.2013.02.001