

Annex to: EFSA NDA Panel, 2024. Scientific opinion on the Tolerable Upper Intake Level for preformed vitamin A and β-carotene. doi:10.2903/j.efsa.2024.8814

© 2024 Wiley-VCH Verlag GmbH & Co. KgaA on behalf of the European Food Safety Authority.

Annex H – Studies excluded at full-text screening and data extraction level

A.1. Teratogenicity (sQ3a)

Table 1. Excluded studies during full-text screening for sQ3a

Reference	Reason for exclusion
Balogun, O. O.,da Silva Lopes, K.,Ota, E.,Takemoto, Y.,Rumbold, A.,Takegata, M.,Mori, R. (2016). Vitamin supplementation for preventing miscarriage <i>Cochrane Database of Systematic Reviews</i> , 2016(5), CD004073	Outcome not relevant (not teratogenic outcomes in offspring)
Carmichael, S. L.,Shaw, G. M.,Selvin, S.,Schaffer, D. M. (2003). Diet quality and risk of neural tube defects <i>Medical Hypotheses</i> , 60(3), 351-355	Wrong exposure (no quantitative estimates of vitamin A intake)
Carmichael, S. L.,Yang, W.,Shaw, G. M.,National Birth Defects Prevention, Study (2013). Maternal dietary nutrient intake and risk of preterm delivery <i>American Journal of Perinatology</i> , 30(7), 579-88	Outcome not relevant (not teratogenic outcomes in offspring)
Chowchuen, B.,Thanaviratananich, S.,Chichareon, V.,Kamolnate, A.,Uewichitrapochana, C.,Godfrey, K. (2015). A Multisite Study of Oral Clefts and Associated Abnormalities in Thailand: The Epidemiologic Data <i>Plastic and Reconstructive Surgery - Global Open</i> , 3(12), e583	Wrong exposure (no quantitative estimates of vitamin A intake)
Cortes-Albornoz, M. C.,Garcia-Guaqueta, D. P.,Velez-Van-meerbeke, A.,Talero-Gutierrez, C. (2021). Maternal nutrition and neurodevelopment: A scoping review <i>Nutrients</i> , 13(10), 3530	Wrong publication type (scoping review, not including original data)
Deka, D., Sharma, N. Nutrition in pregnancy and lactation	Other (full-text not found)
Duerbeck, N.B., Dowling, D.D. (2012) Vitamin A: too much of a good thing? <i>Obstet Gynecol Surv</i> . 2012 Feb;67(2):122-8. doi: 10.1097/OGX.0b013e318244c52d.	Wrong publication type (review, not including original data)
Felix JF, van Dooren MF, Klaassens M, Hop WC, Torfs CP, Tibboel D. (2008) Environmental factors in the etiology of esophageal atresia and congenital diaphragmatic hernia: results of a case-control study. <i>Birth Defects Res A Clin Mol Teratol</i> . 2008 Feb;82(2):98-105. doi: 10.1002/bdra.20423.	Wrong exposure (no quantitative estimates of vitamin A intake)
Gilchrist, H.,Taranath, D. A.,Gole, G. A. (2010). Ocular malformation in a newborn secondary to maternal hypovitaminosis A <i>Journal of Aapos: American Association for Pediatric Ophthalmology & Strabismus</i> , 14(3), 274-6	Wrong exposure (no quantitative estimates of vitamin A intake)
Impact of Maternal Vitamin A or Beta-Carotene Supplementation on Maternal and Infant Mortality in Bangladesh	Wrong publication type (trial registration, not including original data)
Labrique, A. B.,Christian, P.,Klemm, R. D.,Rashid, M.,Shamim, A.,Massie, A.,Schulze, K.,Hackman, A.,West, K. P., Jr. (2011). A cluster-randomized, placebo-controlled, maternal vitamin A or beta-carotene supplementation trial in Bangladesh: design and methods <i>Trials</i> , 12, 102	Wrong publication type (this is a design and methods paper, not including original data)

Lee, Y. Q., Collins, C. E., Gordon, A., Rae, K. M., Pringle, K. G. (2018). The Relationship between Maternal Nutrition during Pregnancy and Offspring Kidney Structure and Function in Humans: A Systematic Review <i>Nutrients</i> , 10(2), 21	Wrong publication type (systematic review, not including original data)
Pace, N. D., Desrosiers, T. A., Carmichael, S. L., Shaw, G. M., Olshan, A. F., Siega-Riz, A. M., National Birth Defects Prevention Study (2018). Antioxidant Consumption is Associated with Decreased Odds of Congenital Limb Deficiencies <i>Paediatric and Perinatal Epidemiology</i> , 32(1), 90-99	Wrong exposure (no quantitative estimates of vitamin A intake)
Ramakrishnan, U., Nguyen, P. H., Gonzalez-Casanova, I., Pham, H., Hao, W., Nguyen, H., Truong, T. V., Nguyen, S., Harding, K. B., Reinhart, G. A., Neufeld, L. M., Martorell, R. (2016). Neither preconceptional weekly multiple micronutrient nor iron-folic acid	Wrong exposure (no quantitative estimates of vitamin A intake)
Siebold, B., Heike, C. L., Leroux, B. G., Speltz, M. L., Drake, A. F., Johns, A. L., Kapp-Simon, K. A., Magee, L., Luquetti, D. V. (2019). Evaluation of prenatal diabetes mellitus and other risk factors for craniofacial microsomia <i>Birth Defects Research</i> , 111(11), 649-658	Wrong exposure (no quantitative estimates of vitamin A intake)
Smedts HP, de Vries JH, Rakhsandehroo M, Wildhagen MF, Verkleij-Hagoort AC, Steegers EA, Steegers-Theunissen RP. (2009) High maternal vitamin E intake by diet or supplements is associated with congenital heart defects in the offspring. <i>BJOG</i> . 2009 Feb;116(3):416-23. doi: 10.1111/j.1471-0528.2008.01957.x.	Wrong exposure (intake assessment 16 months post-partum)
Wang, D., Zhang, Y., Jiang, Y., Ye, Y., Ji, M., Dou, Y., Chen, X., Li, M., Ma, X., Sheng, W., Huang, G., Yan, W., Spcc group (2019). Shanghai Preconception Cohort (SPCC) for the association of periconceptional parental key nutritional factors with health outcomes of children with congenital heart disease: a cohort profile <i>BMJ Open</i> , 9(11), e031076	Wrong exposure (no quantitative estimates of vitamin A intake)
Yakoob, M. Y., Menezes, E. V., Soomro, T., Haws, R. A., Darmstadt, G. L., Bhutta, Z. A. (2009). Reducing stillbirths: behavioural and nutritional interventions before and during pregnancy <i>BMC Pregnancy & Childbirth</i> , 9 Suppl 1:S3	Wrong publication type (systematic review, not including original data)
Zhang, B. Y., Zhang, T., Lin, L. M., Wang, F., Xin, R. L., Gu, X., He, Y. N., Yu, D. M., Li, P. Z., Zhang, Q. S., Zhao, J., Qin, Y. F., Yang, X. F., Chen, G., Liu, J. F., Song, X. M., Zheng, X. Y. (2008). Correlation between birth defects and dietary nutrition status in a high incidence area of China. <i>Biomedical & Environmental Sciences</i> , 21(1), 37-44	Wrong exposure (no quantitative estimates of vitamin A intake)

Table 2. Excluded studies during data extraction for sQ3a

Reference	Reason for exclusion
Abdou, M.S.M., Sherif, A.A.R., Wahdan, I.M.H. et al. (2019). Pattern and risk factors of congenital anomalies in a pediatric university hospital, Alexandria, Egypt. <i>J. Egypt. Public. Health. Assoc.</i> 94, 3 (2019). https://doi.org/10.1186/s42506-018-0004-3	Exposure excess vitamin A was not sufficiently described to determine whether "pills taken" referred to only authorised food supplements or included also drugs
Carmichael SL, Ma C, Witte JS, Yang W, Rasmussen SA, Brunelli L, Nestoridi E, Shaw GM, Feldkamp ML. (2020) Congenital diaphragmatic hernia and maternal dietary nutrient pathways and diet quality in the National Birth Defects Prevention Study. <i>Birth Defects Res.</i> 2020 Nov;112(18):1475-1483. doi: 10.1002/bdr2.1770	Wrong exposure (no quantitative estimates of vitamin A)
Krapels IP, van Rooij IA, Ocké MC, West CE, van der Horst CM, Steegers-Theunissen RP. (2004). Maternal nutritional status and the risk for	Wrong exposure (intake assessment ~14 months post-partum)

orofacial cleft offspring in humans. <i>J Nutr.</i> 2004 Nov;134(11):3106-13. doi: 10.1093/jn/134.11.3106.	
Moore KJ, Carmichael SL, Forestieri NE, et al. (2020). Maternal diet as a risk factor for primary congenital glaucoma and defects of the anterior segment of the eye in the National Birth Defects Prevention Study. <i>Birth Defects Research.</i> 2020; 112: 503–514. https://doi.org/10.1002/bdr2.1664	Wrong exposure (no quantitative estimates of vitamin A or preformed vitamin A)
Shaw, G. M., Carmichael, S. L., Laurent, C., Louik, C., Richard H. Finnell R. H., Lammer, E. J. (2007). Nutrient Intakes in Women and Risks of Anophthalmia and Microphthalmia in Their Offspring. <i>Birth Defects Research,</i> 79(10), 708-713	Overlaps with other reference that is more recent and updated (Weber 2018)
Skare, O., Jugessur, A., Lie, R. T., Wilcox, A. J., Murray, J. C., Lunde, A., Nguyen, T. T., Gjessing, H. K. (2012). Application of a novel hybrid study design to explore gene-environment interactions in orofacial clefts <i>Annals of Human Genetics,</i> 76(3), 221-36	GxE interaction between maternal exposure and genetic variants. Not comparable to the rest of the body of evidence

B.1. Hepatotoxicity (sQ4a)

Table 3. Excluded studies during full-text screening for sQ4a

Reference	Reason for exclusion
Ake, M., Poby, A. G., Malan, K. A., Tebi, A., Monnet, D. (2001). Effects of vitamin A supplementation on nutritional markers on the follow-up of malnutrition in children. <i>Annales de biologie clinique.</i> 2001. 59:417-421	Language (full text not in English)
Bjelakovic G, Gluud LL, Nikolova D, Bjelakovic M, Nagorni A, Gluud C. (2011) Antioxidant supplements for liver diseases. Cochrane Database Syst Rev. 2011 Mar 16;(3):CD007749. doi: 10.1002/14651858.CD007749.pub2	Wrong publication type (meta-analysis, not including original data)
Bjelakovic, G., Gluud, L. L., Nikolova, D., Bjelakovic, M., Nagorni, A., Gluud, C. (2010). Meta-analysis: antioxidant supplements for liver diseases - the Cochrane Hepato-Biliary Group. <i>Alimentary Pharmacology & Therapeutics.</i> 2010. 32:356-67	Wrong publication type (meta-analysis, not including original data)
Farhangi, M. A., Keshavarz, S. A., Eshraghian, M., Ostadrahimi, A., Saboor-Yaraghi, A. A. (2012). The effect of vitamin A supplementation on thyroid function in premenopausal women. <i>Journal of the American College of Nutrition.</i> 2012. 31:268-74	Outcome not relevant
Gannon B, Kaliwile C, Arscott SA, Schmaelzle S, Chileshe J, Kalungwana N, Mosonda M, Pixley K, Masi C, Tanumihardjo SA. (2014) Biofortified orange maize is as efficacious as a vitamin A supplement in Zambian children even in the presence of high liver reserves of vitamin A: a community-based, randomized placebo-controlled trial. <i>Am J Clin Nutr.</i> 2014 Dec;100(6):1541-50. doi: 10.3945/ajcn.114.087379.	Outcome not relevant
Ginawi, I. A., Ahmed, M. Q., Ahmad, I., Al-Hazimi, A. M. (2013). Effect of zinc and vitamin a supplementation along with inter-tubercular treatment in pulmonary tuberculosis in north indian patients. <i>International Journal of Pharmaceutical Sciences and Research.</i> 2013. 4(9):3426-3431	Outcome not relevant
Greenberger, S., Harats, D., Salameh, F., Lubish, T., Harari, A., Trau, H., Shaish, A. (2012). 9-cis-Rich β-Carotene Powder of the Alga Dunaliella Reduces the Severity of Chronic Plaque Psoriasis: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial, <i>Journal of the American College of Nutrition,</i> 31:5, 320-326, DOI: 10.1080/07315724.2012.10720430	Wrong exposure (no quantitative estimates of vitamin A intake)
Lai GY, Weinstein SJ, Taylor PR, McGlynn KA, Virtamo J, Gail MH, Albanes D, Freedman ND. (2014). Effects of α-tocopherol and β-carotene supplementation on liver cancer incidence and chronic liver disease mortality in	Outcome not relevant

the ATBC study. Br J Cancer. 2014 Dec 9;111(12):2220-3. doi: 10.1038/bjc.2014.514.	
Lirussi, F.,Azzalini, L.,Orando, S.,Orlando, R.,Angelico, F. (2007). Antioxidant supplements for non-alcoholic fatty liver disease and/or steatohepatitis. <i>Cochrane Database of Systematic Reviews</i> . 2007. (1) (no pagination):#pages#	Wrong publication type (not including original data)
Mondloch S, Gannon BM, Davis CR, Chileshe J, Kaliwile C, Masi C, Rios-Avila L, Gregory JF 3rd, Tanumihardjo SA. (2015). High provitamin A carotenoid serum concentrations, elevated retinyl esters, and saturated retinol-binding protein in Zambian preschool children are consistent with the presence of high liver vitamin A stores. Am J Clin Nutr. 2015 Aug;102(2):497-504. doi: 10.3945/ajcn.115.112383.	Wrong exposure (no quantitative estimates of vitamin A intake)
Papadimitrakopoulou, V. A.,Lee, J. J.,William Jr, W. N.,Martin, J. W.,Thomas, M.,Kim, E. S.,Khuri, F. R.,Shin, D. M.,Feng, L.,Waun, K. H.,Lippman, S. M. (2009). Randomized trial of 13-cis retinoic acid compared with retinyl palmitate with or without beta-carotene in oral premalignancy. <i>Journal of Clinical Oncology</i> . 2009. 27(4):599-604	Outcome not relevant
Xiong, K.,Wang, J.,Zhang, B.,Xu, L.,Hu, Y.,Ma, A. (2021). Vitamins A and D fail to protect against tuberculosis-drug-induced liver injury: A post hoc analysis of a previous randomized controlled trial. <i>Nutrition</i> . 2021. 86	Wrong duration (<3 months)
Zhang, X.,Chen, K.,Qu, P.,Liu, Y. X.,Li, T. Y. (2010) Effect of biscuits fortified with different doses of vitamin A on indices of vitamin A status, haemoglobin and physical growth levels of pre-school children in Chongqing. <i>Public Health Nutrition</i> . 2010. 13:1462-71	Outcome not relevant
Zhao, M.,Zhao, Y.,Li, T. Y.,Wang, R.,Qu, P.,Lian, X. M.,Mao, C. T.,Dai, Y.,Liu, Y. X. (2006). Interventional effects of biscuits fortified with different doses of vitamin A on the vitamin A status in children of 3-6 years old. <i>Chinese Journal of Clinical Rehabilitation</i> . 2006. 10(16):158-161	Outcome not relevant

Table 5. Excluded studies during data extraction for SQ4a

Reference	Reason for exclusion
Jafarirad, S.,Siassi, F.,Harirchian, M. H.,Amani, R.,Bitarafan, S.,Saboor-Yaraghi, A. (2013). The effect of vitamin a supplementation on biochemical parameters in multiple sclerosis patients. Iranian Red Crescent Medical Journal. 2013. 15(3):194-8.	Duplicate of Bitarafan et al., 2015.

C.1. Bone health (sQ5a+b)**Table 5. Excluded studies during full-text screening for sQ 5a and 5b**

Reference	Reason for exclusion
Neufingerl N, Eilander A. (2021). Nutrient Intake and Status in Adults Consuming Plant-Based Diets Compared to Meat-Eaters: A Systematic Review. <i>Nutrients</i> . 2021 Dec 23;14(1):29. doi: 10.3390/nu14010029.	Wrong publication type (systematic review, not reporting on original data)
Pettersson C, Svedlund A, Wallengren O, Swolin-Eide D, Paulson Karlsson G, Ellegård L. (2021). Dietary intake and nutritional status in adolescents and young adults with anorexia nervosa: A 3-year follow-up study. <i>Clin Nutr</i> . 2021 Oct;40(10):5391-5398. doi: 10.1016/j.clnu.2021.08.014.	Outcome not relevant
Moradell A, Navarrete-Villanueva D, Fernández-García ÁI, Marín-Puyalto J, Gómez-Bruton A, Pedrero-Chamizo R, Pérez-Gómez J, Ara I, Casajus JA, Gómez-Cabello A, Vicente-Rodríguez G. (2020). Role of Dietary Intake and Serum 25(OH)D on the Effects of a Multicomponent Exercise	Study duration (<12 months)

Program on Bone Mass and Structure of Frail and Pre-Frail Older Adults. Nutrients. 2020 Oct 1;12(10):3016. doi: 10.3390/nu12103016.	
Tanumihardjo, S. A., Gannon, B. M., Kaliwile, C., Chileshe, J., Binkley, N. C. (2019). Restricting vitamin A intake increases bone formation in Zambian children with high liver stores of vitamin. <i>Archives of Osteoporosis</i> . 2019. 14(1) (no pagination):	Wrong outcome (bone turnover)
Xu J, Song C, Song X, Zhang X, Li X. (2017). Carotenoids and risk of fracture: a meta-analysis of observational studies. <i>Oncotarget</i> . 2017 Jan 10;8(2):2391-2399. doi: 10.18632/oncotarget.13678.	Wrong publication type (meta-analysis, not reporting on original data)
Chen, G. D., Zhu, Y. Y., Cao, Y., Liu, J., Shi, W. Q., Liu, Z. M., Chen, Y. M. (2015). Association of dietary consumption and serum levels of vitamin A and beta-carotene with bone mineral density in Chinese adults. <i>Bone</i> . 2015. 79(Oct):1105	Wrong study design (cross-sectional)
Joo, N. S., Yang, S. W., Song, B. C., Yeum, K. J. (2015). Vitamin A intake, serum vitamin D and bone mineral density: Analysis of the Korea national health and nutrition examination survey (KNHANES, 2008-2011). <i>Nutrients</i> . 2015. 7(3):1716-1727	Wrong study design (cross-sectional)
Petersen, S. B., Rasmussen, M. A., Olsen, S. F., Vestergaard, P., Molgaard, C., Halldorsson, T. I., Strom, M. (2015). Maternal dietary patterns during pregnancy in relation to offspring forearm fractures: Prospective study from the danish national birth cohort. <i>Nutrients</i> . 2015. 7(4):2382-2400	Wrong outcome (fractures in offspring)
Snellman, G., Byberg, L., Lemming, E. W., Melhus, H., Gedeborg, R., Mallmin, H., Wolk, A., Michaelsson, K. (2014). Long-term dietary vitamin D intake and risk of fracture and osteoporosis: A longitudinal cohort study of Swedish middle-aged and elderly women. <i>Journal of Clinical Endocrinology and Metabolism</i> . 2014. 99(3):781-790	Wrong exposure (not dietary vitamin A/retinol)
Ambrosini, G. L., Alfonso, H., Reid, A., Mackerras, D., Bremner, A., Beilby, J., Olsen, N. J., Musk, A. W., De Klerk, N. H. (2014). Plasma retinol and total carotenes and fracture risk after long-term supplementation with high doses of retinol. <i>Nutrition</i> . 2014. 30(5):551-556	Wrong exposure (not dietary vitamin A/retinol)
Dai Z, Wang R, Ang LW, Low YL, Yuan JM, Koh WP. (2014). Protective effects of dietary carotenoids on risk of hip fracture in men: the Singapore Chinese Health Study. <i>J Bone Miner Res</i> . 2014 Feb;29(2):408-17. doi: 10.1002/jbmr.2041.	Wrong exposure (no quantitative estimates of vitamin A)
Samieri, C., Ginder Coupez, V., Lorrain, S., Letenneur, L., Alles, B., Fearn, C., Paineau, D., Barberger-Gateau, P. (2013). Nutrient patterns and risk of fracture in older subjects: Results from the Three-City Study. <i>Osteoporosis International</i> . 2013. 24(4):1295-1305	Wrong exposure (only patterns, not individual nutrients)
Scott, D., Blizzard, L., Fell, J., Giles, G., Jones, G. (2010). Associations between dietary nutrient intake and muscle mass and strength in community-dwelling older adults: The Tasmanian older adult cohort study. <i>Journal of the American Geriatrics Society</i> . 2010. 58(11):2129-2134	Wrong outcome (not bone-related)
Sahni S, Hannan MT, Blumberg J, Cupples LA, Kiel DP, Tucker KL. (2009). Protective effect of total carotenoid and lycopene intake on the risk of hip fracture: a 17-year follow-up from the Framingham Osteoporosis Study. <i>J Bone Miner Res</i> . 2009 Jun;24(6):1086-94. doi: 10.1359/jbm.090102.	Wrong exposure (no quantitative estimates of vitamin A)
Sahni S, Hannan MT, Blumberg J, Cupples LA, Kiel DP, Tucker KL. (2009). Inverse association of carotenoid intakes with 4-y change in bone mineral density in elderly men and women: the Framingham Osteoporosis Study. <i>Am J Clin Nutr</i> . 2009 Jan;89(1):416-24. doi: 10.3945/ajcn.2008.26388.	Wrong exposure (no quantitative estimates of vitamin A)
Wang Y, Hodge AM, Wluka AE, English DR, Giles GG, O'Sullivan R, Forbes A, Cicuttini FM. (2007). Effect of antioxidants on knee cartilage and bone in healthy, middle-aged subjects: a cross-sectional study. <i>Arthritis Res Ther</i> . 2007;9(4):R66. doi: 10.1186/ar2225.	Wrong exposure (no quantitative estimates of vitamin A)

Yazdanpanah, N.,Zillikens, M. C.,Rivadeneira, F.,de Jong, R.,Lindemans, J.,Uitterlinden, A. G.,Pols, H. A. P.,van Meurs, J. B. J. (2007). Effect of dietary B vitamins on BMD and risk of fracture in elderly men and women: The Rotterdam Study. <i>Bone</i> . 2007. 41(6):987-994	Wrong study design
Jackson HA, Sheehan AH. (2005). Effect of vitamin A on fracture risk. <i>Ann Pharmacother</i> . 2005 Dec;39(12):2086-90. doi: 10.1345/aph.1G028.	Wrong publication type (review, not reporting on original data)
Wattanapenpaiboon, N.,Lukito, W.,Wahlqvist, M. L.,Strauss, B. J. G. (2003). Dietary carotenoid intake as a predictor of bone mineral density. <i>Asia Pacific Journal of Clinical Nutrition</i> . 2003. 12(4):467-473	Wrong study design (cross-sectional)
Opotowsky, A. R.,Bilezikian, J. P. (2004). Serum vitamin A concentration and the risk of hip fracture among women 50 to 74 years old in the United States: A prospective analysis of the NHANES I follow-up study. <i>American Journal of Medicine</i> . 2004. 117(3):169-74.	Wrong exposure (serum, not dietary vitamin A)
Crandall, C. (2004). Vitamin A intake and osteoporosis: A clinical review. <i>Journal of Women's Health</i> . 2004. 13(8):939-953	Wrong publication type (narrative review)
Komaroff, A.L. (2002). Does Excess Vitamin A Cause Hip Fracture? <i>Harvard Women's Health Watch</i>	Wrong publication type (review, not reporting on original data)
Ballew, C.,Galuska, D.,Gillespie, C. (2001). High serum retinyl esters are not associated with reduced bone mineral density in the Third National Health and Nutrition Examination Survey, 1988-1994. <i>Journal of Bone and Mineral Research</i> . 2001. 16(12):2306-2312	Wrong study design (cross-sectional)
Khojah Q, AlRumaihi S, AlRajeh G, Aburas A, AlOthman A, Ferwana M. (2021). Vitamin A and its derivatives effect on bone mineral density, a systematic review. <i>J Family Med Prim Care</i> . 2021 Nov;10(11):4089-4095. doi: 10.4103/jfmpc.jfmpc_663_21.	Wrong publication type (systematic review, not reporting on original data)
Hathcock, J. N. (2002). Does high intake of vitamin A pose a risk for osteoporotic fracture?. <i>JAMA</i> . 2002. 287:1396-7	Wrong publication type (editorial)
Neville, C. E.,Robson, P. J.,Murray, L. J.,Strain, J. J.,Twisk, J.,Gallagher, A. M.,McGuinness, M.,Cran, G. W.,Ralston, S. H.,Boreham, C. A. (2002). The effect of nutrient intake on bone mineral status in young adults: the Northern Ireland young hearts project. <i>Calcified Tissue International</i> . 2002. 70:89-98	Wrong exposure (not vitamin A)
Zhang X, Zhang R, Moore JB, Wang Y, Yan H, Wu Y, Tan A, Fu J, Shen Z, Qin G, Li R, Chen G. (2017). The Effect of Vitamin A on Fracture Risk: A Meta-Analysis of Cohort Studies. <i>Int J Environ Res Public Health</i> . 2017 Sep 10;14(9):1043. doi: 10.3390/ijerph14091043.	Wrong publication type (meta-analysis, not reporting on original data)
Knapik JJ, Hoedebecke SS. (2021). Vitamin A and Bone Fractures: Systematic Review and Meta-Analysis. <i>J Spec Oper Med</i> . 2021 Summer;21(2):100-107. doi: 10.55460/OGLF-K9ZU.	Wrong publication type (systematic review, not reporting on original data)
Zhou P, Shao R, Wang H, Miao J, Wang X. (2020). Dietary vitamin A, C, and E intake and subsequent fracture risk at various sites: A meta-analysis of prospective cohort studies. <i>Medicine (Baltimore)</i> . 2020 Aug 28;99(35):e20841. doi: 10.1097/MD.0000000000020841.	Wrong publication type (meta-analysis, not reporting on original data)
Wu AM, Huang CQ, Lin ZK, Tian NF, Ni WF, Wang XY, Xu HZ, Chi YL. (2014). The relationship between vitamin A and risk of fracture: meta-analysis of prospective studies. <i>J Bone Miner Res</i> . 2014 Sep;29(9):2032-9. doi: 10.1002/jbmr.2237.	Wrong publication type (meta-analysis, not reporting on original data)

Table 6. Excluded studies during data extraction for SQ5

Reference	Reason for exclusion
Ambrosini, G. L.,Bremner, A. P.,Reid, A.,Mackerras, D.,Alfonso, H.,Olsen, N. J.,Musk, A. W.,De Klerk, N. H.	A criterion for inclusion was that data from phase 1 of this study was made available by the authors.

(2013). No dose-dependent increase in fracture risk after long-term exposure to high doses of retinol or beta-carotene <i>Osteoporos Int</i> (2013) 24:1285–1293	Phase 1 of the study was a randomized controlled trial where subjects were supplemented with either retinyl esters or beta-carotene. Phase 2, which this publication reports on, was a non-randomized trial and did not fulfil eligibility criteria. We did not receive the data and this study has therefore been excluded at the data extraction stage.
de Jonge, E. A., Kieft-de Jong, J. C., Campos-Obando, N., Booij, L., Franco, O. H., Hofman, A., Uitterlinden, A. G., Rivadeneira, F., Zillikens, M. C. (2015). Dietary vitamin A intake and bone health in the elderly: the Rotterdam Study. <i>European Journal of Clinical Nutrition</i> . 2015. 69:1375	Duplicate of study already included (de Jonge et al., 2015)