

Search term

Appendix 1. Pubmed search strategy

Searched March 6, 2023

#1"polycystic ovary syndrome"[MeSH Terms](21,864)

#2"polycystic ovarian syndrome"[Title/Abstract] OR "polycystic ovarian"[Title/Abstract] OR "ovary syndrome polycystic"[Title/Abstract] OR "stein leventhal syndrome"[Title/Abstract] OR "sclerocystic ovarian degeneration"[Title/Abstract] OR (("ovarial"[All Fields] OR "Ovary"[MeSH Terms] OR "Ovary"[All Fields] OR "ovaries"[All Fields] OR "ovary s"[All Fields]) AND "Sclerocystic"[Title/Abstract]) OR "PCOS"[Title/Abstract] OR "PCOD"[Title/Abstract] OR "Ovary"[Title/Abstract] OR "oophoron"[Title/Abstract] (99,121)

#3(#1) OR (#2) (100,975)

#4"antioxidants"[MeSH Terms] OR "vitamins"[MeSH Terms] OR "vitamin e"[MeSH Terms] OR "ascorbic acid"[MeSH Terms] OR "tocopherols"[MeSH Terms] OR "selenium"[MeSH Terms] OR "zinc"[MeSH Terms] OR "ubiquinone"[MeSH Terms] OR "acetylcysteine"[MeSH Terms] OR "carnitine"[MeSH Terms] OR "melatonin"[MeSH Terms] OR "glutathione"[MeSH Terms] OR "carotenoids"[MeSH Terms] OR "arginine"[MeSH Terms] OR "resveratrol"[MeSH Terms] OR "vitamin d"[MeSH Terms] OR "ergocalciferols"[MeSH Terms] OR "curcumin"[MeSH Terms](637,394)

#5"Antioxidants"[Title/Abstract] OR "Vitamin"[Title/Abstract] OR "vitamin e"[Title/Abstract] OR "tocopherol*"[Title/Abstract] OR "alpha tocopherol*"[Title/Abstract] OR "tocotrienol"[Title/Abstract] OR "vitamin c"[Title/Abstract] OR "ascorbic acid"[Title/Abstract] OR "ascorb*"[Title/Abstract] OR "selenium"[Title/Abstract] OR "selen*"[Title/Abstract] OR "zinc"[Title/Abstract] OR "zinc*"[Title/Abstract] OR "ubiquinone"[Title/Abstract] OR "ubiquinol"[Title/Abstract] OR "coenzyme q10"[Title/Abstract] OR "CoQ10"[Title/Abstract] OR "Acetylcysteine"[Title/Abstract] OR "Carnitine"[Title/Abstract] OR "carnitene"[Title/Abstract] OR "melatonin"[Title/Abstract] OR "Glutathione"[Title/Abstract] OR "GSH"[Title/Abstract] OR "carotene"[Title/Abstract] OR "betacarotene"[Title/Abstract] OR "Arginine"[Title/Abstract] OR "resveratrol*"[Title/Abstract] OR "Curcumin"[Title/Abstract] OR "evening primrose"[Title/Abstract] OR "evening primrose oil"[Title/Abstract] OR "vitamin d"[Title/Abstract](838,335)

#6 #4OR#5(1070,280)

#7#3AND#6(4,306)

#8((((("randomized controlled trial"[Publication Type] OR "controlled clinical trial"[Publication Type] OR "clinical trials as topic"[MeSH Terms] OR "Randomized"[Title/Abstract] OR "placebo"[Title/Abstract] OR "randomly"[Title/Abstract] OR "Trial"[Title/Abstract]) NOT "animals"[MeSH Terms]) NOT "mice"[Title/Abstract]) NOT "mouse"[Title/Abstract]) NOT "mouse"[Title/Abstract]) NOT "review"[Title/Abstract]) NOT "rats"[Title/Abstract]) NOT "fish"[Title/Abstract](181,010)

#9(#7) AND (#8)(49)

Appendix 2. Embase search strategy

Searched March 6, 2023

#1 'pcos' OR 'polycystic ovary'/exp OR 'polycystic ovarian syndrome' OR 'stein-leventhal syndrome'/exp OR 'sclerocystic ovarian degeneration'(39063)

#2'pcos':ab,ti OR 'polycystic ovar*':ab,ti OR 'polycystic ovarian syndrome':ab,ti OR 'stein-leventhal syndrome':ab,ti OR 'sclerocystic ovarian degeneration':ab,ti OR 'ovary, sclerocystic':ab,ti OR 'oophoron':ab,ti(32,366)

#3 #1 OR #2(40,532)

#4'antioxidants'/exp OR 'antioxidants' OR 'vitamins'/exp OR 'vitamins' OR 'vitamin e'/exp OR 'vitamin e' OR 'ascorbic acid'/exp OR 'ascorbic acid' OR 'tocopherols'/exp OR 'tocopherols' OR 'selenium'/exp OR 'selenium' OR 'zinc'/exp OR 'zinc' OR 'ubiquinone'/exp OR 'ubiquinone' OR 'acetylcysteine'/exp OR 'acetylcysteine' OR 'carnitine'/exp OR 'carnitine' OR 'melatonin'/exp OR 'melatonin' OR 'glutathione'/exp OR 'glutathione' OR 'carotenoids'/exp OR 'carotenoids' OR 'arginine'/exp OR 'arginine' OR 'resveratrol'/exp OR 'resveratrol' OR 'vitamin d'/exp OR 'vitamin d' OR 'evening primrose'/exp OR 'evening primrose' OR 'curcumin'/exp OR 'curcumin'(1826311)

#5'antioxidants':ab,ti OR 'vitamin':ab,ti OR 'vitamin e':ab,ti OR 'tocopherol*':ab,ti OR 'alpha tocopherol*':ab,ti OR 'tocotrienol':ab,ti OR 'vitamin c':ab,ti OR 'ascorbic acid':ab,ti OR 'ascorb*':ab,ti OR 'selenium':ab,ti OR 'selen*':ab,ti OR 'zinc c':ab,ti OR 'zinc*':ab,ti OR 'ubiquinone':ab,ti OR 'ubiquinol':ab,ti OR 'coenzyme q10':ab,ti OR 'coq10':ab,ti OR 'acetylcysteine':ab,ti OR 'carnitine':ab,ti OR 'carnitene':ab,ti OR 'melatonin':ab,ti OR 'glutathione':ab,ti OR 'gsh':ab,ti OR 'carotene':ab,ti OR 'betacarotene':ab,ti OR 'arginine':ab,ti OR 'resveratrol*':ab,ti OR 'vitamin d':ab,ti OR 'curcumin':ab,ti OR 'evening primrose oil':ab,ti(998,432)

#6 #4 OR #5(1882,436)

#7('randomized controlled trial'/exp OR 'randomized controlled trial' OR 'controlled clinical trial'/exp OR 'controlled clinical trial' OR 'clinical trials as topic'/exp OR 'clinical trials as topic' OR 'randomized':ab,ti OR 'placebo':ab,ti OR 'randomly':ab,ti OR 'trial':ab,ti) NOT ('animals'/exp OR 'animals') NOT 'mice':ab,ti NOT 'mouse':ab,ti NOT 'fish':ab,ti NOT 'review':ab,ti(141,514)

#8#6 AND #7(5,904)

#9#3 AND #8(26)

Appendix 3. Web of Science search strategy

Searched March 6, 2023

#1((((((TS=(PCOS)) OR TS=(polycystic ovary)) OR TS=(polycystic ovarian syndrome)) OR TS=(Stein-Leventhal Syndrome)) OR TS=(Sclerocystic Ovarian Degeneration)) OR TS=(Ovary, Sclerocystic)) OR TS=(oophoron)(42,446)

#2TS=(Antioxidants OR Vitamins OR Vitamin E OR Ascorbic Acid OR Tocopherols OR Selenium OR Zinc OR Ubiquinone OR Acetylcysteine OR Carnitine OR Melatonin OR Glutathione OR Carotenoids] OR Arginine OR Resveratrol) OR AB=(Antioxidants OR Vitamin OR vitamin E OR tocopherol* OR alpha tocopherol* OR tocotrienol OR vitamin C OR ascorbic acid OR ascorb* OR selenium OR selen* OR zinc OR zinc* OR ubiquinone OR ubiquinol OR coenzyme Q10 OR CoQ10 OR Acetylcysteine OR Carnitine OR carnitene OR melatonin OR Glutathione OR GSH OR carotene OR betacarotene OR Arginine OR resveratrol* OR Evening Primrose Oil OR VitaminD OR curcumin)(3496,679)

#3(((((((TS=(Randomized Controlled Trial OR Controlled Clinical Trial OR Clinical Trials as Topic)) OR AB=(randomized OR placebo OR randomly OR trial)) NOT TS=(animals)) NOT AB=(mice)) NOT AB=(mouse)) NOT AB=(fish)) NOT AB=(review)) NOT TS=(rats)) NOT TS=(rabbit)(1448,954)
#4 #1 AND #2 AND #3(170)

Appendix 4. The Cochrane library search strategy

#1MeSH descriptor: [Polycystic Ovary Syndrome] explode all trees(1,866)
#2(polycystic ovary syndrome):ti,ab,kw(4,062)
#3(PCOS):ti,ab,kw(3,645)
#4(polycystic ovary):ti,ab,kw(4,248)
#5(Stein-Leventhal Syndrome):ti,ab,kw(36)
#6(Sclerocystic Ovarian Degeneration):ti,ab,kw(0)
#7(Ovary, Sclerocystic):ti,ab,kw(34)
#8(polycystic ovar*):ti,ab,kw(4,635)
#9#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8(5,034)
#10(Resveratrol*):ti,ab,kw(747)
#11(beta-carotene):ti,ab,kw(1,283)
#12MeSH descriptor: [Antioxidants] explode all trees(5,858)
#13(Antioxidants):ti,ab,kw(15,442)
#14(Vitamins):ti,ab,kw(35,906)
#15MeSH descriptor: [Vitamins] explode all trees(5,656)
#16(Vitamin D):ti,ab,kw(16,987)
#17MeSH descriptor: [Vitamin D] explode all trees(6,839)
#18(Vitamin E):ti,ab,kw(8,135)
#19(Tocopherols):ti,ab,kw(3,052)
#20(Tocopherols):ti,ab,kw(815)
#21(alpha-tocopherol*):ti,ab,kw(2,496)
#22(Ascorbic Acid):ti,ab,kw(4,273)
#23(Vitamin C):ti,ab,kw(8,616)
#24(ascorbic acid):ti,ab,kw(4,273)
#25(ascorb*):ti,ab,kw(4,505)
#26MeSH descriptor: [Selenium] explode all trees(863)
#27(selen*):ti,ab,kw(2,702)
#28MeSH descriptor: [Zinc] explode all trees(1,877)
#29(ubiquinone):ti,ab,kw(751)
#30MeSH descriptor: [Ubiquinone] explode all trees(650)
#31(coenzyme Q10):ti,ab,kw(1,132)
#32(CoQ10):ti,ab,kw(574)
#33MeSH descriptor: [Acetylcysteine] explode all trees(1,317)
#34(Acetylcysteine):ti,ab,kw(2,581)
#35MeSH descriptor: [Carnitine] explode all trees(731)
#36(Carnitine):ti,ab,kw(1,998)
#37(carnitene):ti,ab,kw(3)

#38MeSH descriptor: [Melatonin] explode all trees(1,494)
#39(melatonin):ti,ab,kw(3,562)
#40MeSH descriptor: [Glutathione] explode all trees(761)
#41(Glutathione):ti,ab,kw(4,322)
#42(GSH):ti,ab,kw(1,463)
#43MeSH descriptor: [Carotenoids] explode all trees(4,259)
#44(carotene):ti,ab,kw(2,118)
#45MeSH descriptor: [Arginine] explode all trees(1,656)
#46(curcumin):ti,ab,kw(1,605)
#47MeSH descriptor: [Resveratrol] explode all trees(359)
#48MeSH descriptor: [Curcumin] explode all trees(596)
#49("evening primrose oil"):ti,ab,kw(247)
#50MeSH descriptor: [Oenothera biennis] explode all trees(90)
#51#10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR
#21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32
OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR
#44 OR #45 OR #46 OR #47 OR #48 OR #49(67,109)
#52#9 AND #51(618)
#53(animals):ti,ab,kw(37,640)
#54MeSH descriptor: [Fishes] in all MeSH products(558)
#55(mice):ti,ab,kw(5,665)
#56MeSH descriptor: [Mice] explode all trees(1,700)
#57(rats):ti,ab,kw(90)(4,564)
#58MeSH descriptor: [Mice] explode all trees(1,700)
#59MeSH descriptor: [Rats] explode all trees(1,452)
#60(fish):ti,ab,kw(7,176)
#61(Rabbit*):ti,ab,kw(1,833)
#62#53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61(49,122)
#63#52 NOT #62(590)(Trials588)