

Journal name

Sports Medicine - Open

Article title

The efficacy of interventions targeting 24-hour movement behaviours in children and adolescents: a systematic review and meta-analysis

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Supplementary Table S1. Search strategy

MEDLINE (ovid)

MEDLINE (ovid)	1 Feb 2024
1. "physical activit*".kf,tw.	134434
2. exp Sports/	220573
3. exp Exercise/	252901
4. ((activ* or outdoor*) adj3 play*).kf,tw.	24202
5. ("prone position*" or "floor time" or "tummy time").kf,tw.	6931
6. 1 or 2 or 3 or 4 or 5	451807
7. Sedentary Behaviour/	13941
8. (sedentary or inactiv* or (lack adj3 activity)).kf,tw.	357732
9. ((low adj3 energy expend*) or physical* inactiv*).kf,tw.	11193
10. sitting.kf,tw.	23671
11. (chair or stroller or car or automobile or bus or indoor* or in-door).kf,tw.	86866
12. ("screen time" or screentime or "screen use" or "TV viewing" or television or watch or view or cartoon or "motion picture" or "screen media" or "social media" or "video gam*" or "computer gam*" or "electronic gam*" or smartphone or laptop or ipad or mobile or app or "screen based entertainment").kf,tw.	480845
13. 7 or 8 or 9 or 10 or 11 or 12	934130
14. Sleep/	70096
15. 6 and 13 and 14	1442
16. ((24h or 24-hour or "24 h" or "24 hour*") adj3 "movement behavio*").kf,tw.	176
17. 15 or 16	1529
18. ("randomised controlled trial" or RCT or "controlled clinical trial" or "randomised clinical trial" or quasi-experimental or placebo or intervention* or "primary prevention" or trial).kf,tw.	1849579
19. (newborn or infan* or toddler* or preschool* or pre-school or pediatric or "early year*" or "early childhood" or "young child*" or child* or adolescen* or teen* or young or juvenil* or youth).kf,tw.	2638810
20. 17 and 18 and 19	215
21. limit 20 to (english language and humans and "all child (0 to 18 years)")	196

EMBASE (ovid)

EMBASE (ovid)	1 Feb 2024
1. "physical activit*".kf,tw.	215682
2. exp sport/	217777
3. exp exercise/	444244
4. ((activ* or outdoor*) adj3 play*).kf,tw.	35599
5. ("prone position*" or "floor time" or "tummy time").kf,tw.	13270
6. 1 or 2 or 3 or 4 or 5	790489
7. sedentary lifestyle/	21405
8. (sedentary or inactiv* or (lack adj3 activity)).kf,tw.	470482
9. ((low adj3 energy expend*) or physical* inactiv*).kf,tw.	17684
10. sitting.kf,tw.	39497
11. (chair or stroller or car or automobile or bus or indoor* or indoor).kf,tw.	150369
12. ("screen time" or screentime or "screen use" or "TV viewing" or television or watch or view or cartoon or "motion picture" or "screen media" or "social media" or "video gam*" or "computer gam*" or "electronic gam*" or smartphone or laptop or ipad or mobile or app or "screen based entertainment").kf,tw.	768960
13. 7 or 8 or 9 or 10 or 11 or 12	1407659
14. sleep/	115667
15. 6 and 13 and 14	2602
16. ((24h or 24-hour or "24 h" or "24 hour*") adj3 "movement behavio*").kf,tw.	217
17. 15 or 16	2729
18. ("randomised controlled trial" or RCT or "controlled clinical trial" or "randomised clinical trial" or quasi-experimental or placebo or intervention* or "primary prevention" or trial).kf,tw.	3102312
19. (newborn or infan* or toddler* or preschool* or pre-school or pediatric or "early year*" or "early childhood" or "young child*" or child* or adolescen* or teen* or young or juvenil* or youth).kf,tw.	3713886
20. 17 and 18 and 19	350
21. limit 20 to (human and english language and (infant <to one year> or child <unspecified age> or preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>))	282

SPORTDiscus (EBSCO)

SPORTDiscus (EBSCO)	1 Feb 2024
S10. S9 with Limiters - Peer Reviewed; Language: English; Publication Type: Academic Journal; Document Type: Article	31
S9. S6 AND S7 AND S8	39
S8. newborn OR infan* OR toddler* OR preschool* OR pre-school OR pediatric OR "early year*" OR "early childhood" OR "young child*" OR child* OR adolescen* OR teen* OR young OR juvenil* OR youth	109,575
S7. "randomised controlled trial" OR RCT OR "controlled clinical trial" OR "randomised clinical trial" OR quasi-experimental OR placebo OR intervention* OR "primary prevention" OR trial	72,158
S6. S4 OR S5	479
S5. (24h or 24-hour or "24 h" or "24 hour*") n3 "movement behavio*"	22
S4. S1 AND S2 AND S3	477
S3. sleep	6,045
S2. sedentary OR sitting OR "physical* inactiv*" OR (low n3 energy expend*) OR chair OR stroller OR car OR automobile OR bus OR indoor OR in-door OR sitting OR "screen time" OR screentime OR "screen use" OR "TV viewing" OR television OR watch OR view OR cartoon OR "motion picture" OR "screen media" OR "social media" OR "video gam*" OR "computer gam*" OR "electronic gam*" OR smartphone OR laptop OR ipad OR mobile OR app OR "screen based entertainment"	125,805
S1. "physical activit*" OR sport* OR exercise OR "activ* play" OR "prone position*" OR "floor time" OR "tummy time" OR (activ* or outdoor*) n3 play*	484,869

((("physical activity"[Text Word] OR "sport*" [Text Word] OR "exercise"[Text Word] OR "active play"[Text Word] OR "prone position*" [Text Word] OR "floor time"[Text Word] OR "tummy time"[Text Word]) AND ("sedentary"[Text Word] OR "sitting"[Text Word] OR "inactive"[Text Word] OR "stroller"[Text Word] OR "screen time"[Text Word] OR "screentime"[Text Word] OR "screen use"[Text Word] OR "TV viewing"[Text Word] OR "television"[Text Word] OR "watch"[Text Word] OR "view"[Text Word] OR "cartoon"[Text Word] OR "motion picture"[Text Word] OR "screen media"[Text Word] OR "social media"[Text Word] OR "video gam*" [Text Word] OR "computer gam*" [Text Word] OR "electronic gam*" [Text Word] OR "smartphone"[Text Word] OR "laptop"[Text Word] OR "ipad"[Text Word] OR "mobile"[Text Word] OR "app"[Text Word] OR "screen based entertainment"[Text Word]) AND ("sleep"[Text Word])) OR ("24-hour movement behavior*")) AND ("randomised controlled trial"[Text Word] or "RCT"[Text Word] or "controlled clinical trial"[Text Word] or "randomised clinical trial"[Text Word] or "quasi-experimental"[Text Word] or "placebo"[Text Word] or "intervention*" [Text Word] or "primary prevention"[Text Word] or "trial" [Text Word]) AND ("newborn"[Text Word] OR "infan*" [Text Word] OR "toddler*" [Text Word] OR "preschool*" [Text Word] OR "pre-school"[Text Word] OR "pediatric"[Text Word] OR "early year*" [Text Word] OR "early childhood"[Text Word] OR "young child*" [Text Word] OR "child*" [Text Word] OR "adolescen*" [Text Word] OR "teen*" [Text Word] OR "young"[Text Word] OR "juvenil*" [Text Word] OR "youth"[Text Word]) Filters: Humans, English, Child: birth-18 years

Results: 519

Web of science

Web of science	1 Feb 2024
# 10 (#9) AND LA=(English) AND DT=(Article)	745
# 9 #6 AND #7 AND #8	857
# 8 AB=(newborn OR infan* OR toddler* OR preschool* OR pre-school OR pediatric OR "early year*" OR "early childhood" OR "young child*" OR child* OR adolescen* OR teen* OR young OR juvenil* OR youth)	2,946,483
# 7 AB=("randomised controlled trial" OR RCT OR "controlled clinical trial" OR "randomised clinical trial" OR quasi-experimental OR placebo OR intervention* OR "primary prevention" OR trial)	2,602,494
#6 #4 OR #5	6,724
#5 ALL=("24h movement behavio*" OR "24-hour movement behavio*" OR "24 h movement behavio*" OR "24 hour* movement behavio*")	224
# 4 #1 AND #2 AND #3	6,685
# 3 ALL=(sleep)	392,147
# 2 ALL=(sedentary OR sitting OR inactive OR stroller OR "screen time" OR screentime OR "screen use" OR "TV viewing" OR television OR watch OR view OR cartoon OR "motion picture" OR "screen media" OR "social media" OR "video gam*" OR "computer gam*" OR "electronic gam*" OR smartphone OR laptop OR ipad OR mobile OR app OR "screen based entertainment")	2,872,733
# 1 ALL=("physical activity" OR sport* OR exercise OR "active play" OR "prone position*" OR "floor time" OR "tummy time")	2,070,781

APA PsycINFO

MEDLINE (ovid)	1 Feb 2024
1. "physical activit*".mp.	51928
2. exp Sports/	44925
3. exp Exercise/	33066
4. ((activ* or outdoor*) adj3 play*).mp.	8580
5. ("prone position*" or "floor time" or "tummy time").mp.	357
6. 1 or 2 or 3 or 4 or 5	120796
7. exp Sedentary Behavior/	2643
8. (sedentary or inactiv* or (lack adj3 activity)).mp.	27650
9. ((low adj3 energy expend*) or physical* inactiv*).mp.	3181
10. sitting.mp.	6351
11. (chair or stroller or car or automobile or bus or indoor* or indoor).mp.	29028
12. ("screen time" or screentime or "screen use" or "TV viewing" or television or watch or view or cartoon or "motion picture" or "screen media" or "social media" or "video gam*" or "computer gam*" or "electronic gam*" or smartphone or laptop or ipad or mobile or app or "screen based entertainment").mp.	279008
13. 7 or 8 or 9 or 10 or 11 or 12	335404
14. exp Sleep/	44843
15. 6 and 13 and 14	659
16. ((24h or 24-hour or "24 h" or "24 hour*") adj3 "movement behavio*").mp.	56
17. 15 or 16	678
18. ("randomised controlled trial" or RCT or "controlled clinical trial" or "randomised clinical trial" or quasi-experimental or placebo or intervention* or "primary prevention" or trial).mp.	644285
19. (newborn or infan* or toddler* or preschool* or pre-school or pediatric or "early year*" or "early childhood" or "young child*" or child* or adolescen* or teen* or young or juvenil* or youth).mp.	1485319
20. 17 and 18 and 19	98
21. limit 20 to (human and english language and (100 childhood <birth to age 12 yrs> or 120 neonatal <birth to age 1 mo> or 140 infancy <2 to 23 mo> or 160 preschool age <age 2 to 5 yrs> or 180 school age <age 6 to 12 yrs> or 200 adolescence <age 13 to 17 yrs>))	76