Supplement 4

Behavioural Physical Activity Interventions in Participants with Lower-limb Osteoarthritis: A Systematic Review with Meta-analysis

Literature Search strategies


MEDLINE (Ovid)
1 exp Exertion/
2 Physical fitness/
3 exp “Physical education and training”/
4 exp Sports/
5 exp Dancing/
6 exp Exercise therapy/
7 (physical$ adj5 (fit$ or train$ or activ$ or endur$)).tw.
8 (exercis$ adj5 (train$ or physical$ or activ$)).tw.
9 sport$.tw.
10 walk$.tw.
11 bicycle$.tw.
12 (exercise$ adj aerobic$).tw.
13 (lifestyle” or life-style) adj5 activ$.tw.
14 ((lifestyle” or life-style) adj5 physical$).tw.
15 or/1-14
16 Health education/
17 Patient education/
18 Primary prevention/
19 Health promotion/
20 Behaviour therapy
21 Cognitive therapy
22 Primary health care
23 Workplace/
24 promot$.tw.
25 educat$.tw.
26 program$.tw.
27 or/16-26
28 15 and 27

RCT filter (Dickersin 1995)

EMBASE
1.((((health-education) or (health-education-research)) or ((patient-education) or (patient-education-and-counseling)) or (healthpromotion) or (health-promotion-international)) or (primary-health-care) or ((workplace) or (workplace-)) or (promot*) or ((promot*) or (educat*) or ((program*) and (((exertion) or (fitness) or (fitness-) or (fitness) or (exercise) or (exercise) or (sport) or (walk*)))))

2.((research) or ((((((random-controlled) or (random-sample) or (randomisation) or (randomised) or (randomised-controlled) or (randomization-) or (randomized) or (randomize) or (randomized) or (randomized-block) or (randomized-controlled) or (randomized-controlled-trial) or (randomized-control)) or ((double-blind) or (double-blind-procedure)) or ((single-blind) or (singleblind-procedure))) and (ec=human)) or (clinical) or (clin*) or (trial*) or (((clin* near trial*) in ti) and (ec=human)) or (clin*) or (trial*) or (((clin* near trial*) in ab) and (ec=human)) or (sing*) or (doubl*) or (trebl*) or (tripl*) or (blind*) or (mask*) or (((sing* or doubl* or trebl* or tripl*) near (blind* or mask*)) and (ec=human)) or ((placebos) or (placebo-controlled)) or ((placebo* in ti) and (ec=human)) or ((placebo* in ab) and (ec=human)) or ((random* in ti) and (ec=human)) or ((random in ab) and (ec=human)) or (research) ec=human)

3.((((studies) or (prospective-study) or (follow-up) or (comparative) or (evaluation)) and (ec=human))

CINAHL
1.exact{controlled}
2.exact{randomized}
3.exact{random-assignment}
4.exact{double-blind}
5.exact{single-blind}
6.#1 or #2 or #3 or #4 or #5
7.exact{animal}
8.exact{human}
9.#6 not #7
10.exact{clinical}
11.(clin* near trial*) in ti
12.(clin* near trial*) in ab
13.(singl* or doubl* or trebl* or tripl*) near (blind* or mask*)
14.(#13 in ti) or (#13 in ab)
15.placebos
16.placebo* in ti
17.placebo* in ab
18.random* in ti
19.random* in ab
20.exact{research-methodology}
21.#10 or #11 or #12 or #13 or #14 or #15 or #16 or #17
22.#18 or #19 or #20
23.#21 or #22
24.animal
25.human
26.#23 not #24
27.#26 or #9 or #8 or #25
28.exact{comparative}
29.study
30.#28 and #29
31.exact{evaluation}
32.studies
33.#31 and #32
34.exact{follow-up}
35.exact{propsective}
36.#35 and #32
37.control* or prosepctiv* or volunteer*
38.(#37 in ti) or (#37 in ab)
40. #39 not #24
41. #39 or #27 or #9
42. explode “exertion”/ all subheadings
43. “physical fitness”
44. explode “physical education and training”/ all subheadings
45. explode “sports”/ all subheadings
46. explode “dancing”/ all subheadings
47. explode “exercise therapy”/ all subheadings
48. (physical$ adj5 (fit$ or train$ or activ$ or endur$)).tw.
49. (exercise$ adj5 (train$ or physical$ or activ$)).tw.
50. sport$.tw.
51. walk$.tw.
52. bicycle$.tw
53. (exercise$ adj aerobic$).tw.
54. ("lifestyle" or life-style) adj5 activ$.tw.
55. ("lifestyle" or life-style) adj5 physical$.tw.
56. #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or (exercise$) or (aerobic$) or ("lifestyle") or (activ$) or ("lifestyle") or (lifestyle)
or (physical$)
57. health education
58. patient education
59. primary prevention
60. health promotion
61. behaviour therapy
62. cognitive therapy
63. primary health care
64. workplace
65. promot$.tw.
66. educat$.tw.
67. program$.tw.
68. #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67
69. #68 and #56
70. #69 and #41

PsycLIT
1. exertion
2. physical-fitness
3. exercise
4. explode exercise
5. sport
6. walk*
7. cycle
8. #1 or #2 or #3 or #4 or #5 or #6 or #7
9. health education
10. patient education
11. primary prevention
12. health promotion
13. behaviour therapy
14. cognitive therapy
15. primary health care
16. workplace
17. promot$.tw.
18. educat$.tw.
19. program$.tw.
20. #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19
21. #8 and #20
22. controlled
23. randomized
24. random-assignment
25. double-blind
26. single-blind
27. #22 or #23 or #24 or #25 or #26
28. animal
29. human
30. #27 not #28
31. clinical
32. (clin* near trial*) in ti
33. clin* near trial*) in ab
34. (singl* or doubl* or trebl* or tripl*) near (blind* or mask*)
35. (#34 in ti) or (#34 in ab)
36. placebos
37. placebo* in ti
38. placebo* in ab
39. random* in ti
40. random* in ab
41. research-methodology
42. #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38
43. #39 or #40 or #41
44. #42 or #43
45. animal
46. human
47. #44 not #45
48. #47 or #30 or #29 or #46
49. comparative
50. study
51. #49 and #50
52. evaluation
53. studies
54. #52 and #53
55. follow-up
56. prospective
57. #56 and #53
58. control* or prosepctiv* or volunteer*
59. (#58 in ti) or (#58 in ab)
60. #59 or #57 or #54 or #51
61. #60 not #45
62. #60 or #48 or #30
63. #62 and #21

**SPORTDISCUS**

1. ‘physical activity’
2. exercise
3. fitness
4. sedentary
5. housebound
6. aerobics or circuits or swimming or aqua or jogging or running or cycling or fitness or yoga or walking or sport
7. patient education
8. primary prevention
9. health promotion
10. behaviour therapy
11. cognitive therapy
12. primary health care
13. workplace
14. controlled
15. randomized
16. random-assignment
17. double-blind
18. single-blind
19. clinical
20. placebos
21. comparative
22. evaluation
23. study

SIGLE
1. explode “Exertion/” all subheadings
2. “Physical fitness”
3. explode “Physical education and training” all subheadings
4. explode “Sports” all subheadings
5. explode “Dancing” all subheadings
6. explode “Exercise therapy” all subheadings
7. (physical$ adj5 (fit$ or train$ or activ$ or endur$)).tw.
8. (exercis$ adj5 (train$ or physical$ or activ$)).tw.
9. sport$.tw.
10. walk$.tw.
11. bicycle$.tw
13. ((“lifestyle” or life-style) adj5 activ$).tw.
14. ((“lifestyle” or life-style) adj5 physical$).tw.
15. #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or (exercise$) or (aerobic$) or (“lifestyle”) or (activ$) or (“lifestyle”) or (life-style) or (physical$)
16. Health Education
17. Patient education
18. Primary prevention
19. Health promotion
20. Behaviour therapy
21. Cognitive therapy
22. Primary health care
23. Workplace
24. promot$.tw.
25. educat$.tw.
26. program$.tw.
27. #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26
28. #15 and #27

SCISEARCH

1. ((promot$ or uptake or encourag$ or increas$ or start) near (physical adj activity))
2. (promot$ or uptake or encourag$ or increas$ or start) near exercise
3. (promot$ or uptake or encourag$ or increas$ or start) near (aerobics or circuits or swimming or aqua$)
4. (promot$ or uptake or encourag$ or increas$ or start) near (jogging or running or cycling)
5. (promot$ or uptake or encourag$ or increas$ or start) near ((keep adj fit) or (fitness adj class$) or yoga)
6. (promot$ or uptake or encourag$ or increas$ or start) near walking
7. (promot$ or uptake or encourag$ or increas$ or start) near sport$

Part 2. Search strategies 2012

CENTRAL

#1MeSH descriptor: [Physical Fitness] this term only
#2MeSH descriptor: [Physical Exertion] this term only
#3MeSH descriptor: [Physical Education and Training] explode all trees
#4MeSH descriptor: [Sports] explode all trees
#5MeSH descriptor: [Dancing] this term only
#6MeSH descriptor: [Exercise Therapy] explode all trees
#7physical* near activ*
#8physical* near train*
MEDLINE Ovid
1. Physical Exertion/
2. Physical Fitness/
3. exp “Physical Education and Training”/
4. exp Sports/
5. Dancing/
6. exp Exercise Therapy/
7. exp Exercise/
8. (physical$ adj5 (fit$ or train$ or activ$ or endur$ or exert$)).tw.
9. (exercis$ adj5 (train$ or physical$ or activ$)).tw.
10. sport$.tw.
11. walk$.tw.
12. bicycle$.tw.
13. ((exercise$ adj3 aerobic$) or aerobics).tw.
14. ((lifestyle or life-style) adj5 activ$).tw.
15. ((lifestyle or life-style) adj5 physical$).tw.
16. or/1-15
17. Health Education/
18. Patient Education as Topic/
19. Primary Prevention/
20. exp Health Promotion/
21. Behavior Therapy/
22. Cognitive Therapy/
23. Primary Health Care/
24. Workplace/
25. promot$.tw.
26. educat$.tw.
27. program$.tw.
28. or/17-27
29. 16 and 28
30. randomized controlled trial.pt.
31. controlled clinical trial.pt.
32. randomized.ab.
33. placebo.ab.
34. drug therapy.fs.
35. randomly.ab.
36. single blind procedure/
37. 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
38. (animal/ or nonhuman/) not human/
39. 44 not 45
40. 28 and 46
41. (200412* or 2005* or 2006* or 2007* or 2008* or 2009* or 2010* or 2011* or 2012*).dd.
42. 47 and 48
43. limit 49 to embase
44. CINAHL Plus with Full Text EBSCO
45. S34 S33 Limiters - Exclude MEDLINE records
46. S33 S31 and S32
47. S32 EM 20041201-20121010
48. S31 S20 and S30
49. S30 S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29
50. S29 TX allocat*
51. S28 TX control*
52. S27 TX assign*
53. S26 TX placebo*
54. S25 (MH "Placebos")
55. S24 TX random*
PsycINFO

1. exp exercise/
2. physical fitness/
3. physical activity/
4. exp sports/
5. physical education/
6. (physical$ adj5 (fit$ or train$ or activ$ or endur$ or exertion$)).tw.
7. (exercis$ adj5 (train$ or physical$ or activ$)).tw.
8. sport$.tw.
9. walk$.tw.
10. bicycle$.tw.
11. ((exercise$ adj3 aerobic$) or aerobics).tw.
12. ((lifestyle or life-style) adj5 activ$).tw.
13. ((lifestyle or life-style) adj5 physical$).tw.
14. or/1-13
15. health education/
16. client education/
17. health promotion/
18. prevention/
19. primary health care/
20. behavior therapy/
21. cognitive therapy/
22. cognitive behavior therapy/
23. workplace*.tw.
24. promot$.tw.
25. educat$.tw.
26. program$.tw.
27. or/15-26
28. 14 and 27
29. random*.tw.
30. trial.ab.
31. groups.ab.
32. factorial$.tw.
33. crossover$.tw.
34. cross over$.tw.
35. cross-over$.tw.
36. placebo$.tw.
37. assign$.tw.
38. allocat$.tw.
39. volunteer$.tw.
40. clinical trials/
41. (doub$ adj blind$).tw.
42. (sing$ adj blind$).tw.
43. or/29-42
44. 28 and 43
45. (200412* or 2005* or 2006* or 2007* or 2008* or 2009* or 2010* or 2011* or 2012*).up.
46. 44 and 45

Web of Science

# 20 #19 AND #18
# 19 TS=(random* or blind* or allocat* or assign* or trial* or placebo* or crossover* or cross-over*)
# 18 #17 AND #8
# 17 #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9
# 16 TI=(promot* or educat* or program*)
# 15 TS=(workplace)
# 14 TS=(primary health care)
# 13 TS=(cognitive therap*)
# 12 TS=((behaviour or behavior) NEAR/2 therap*)
# 11 TS=(health NEAR/2 promot*)
# 10 TS=(primary prevent*)
# 9 TS=((health educat*) or (patient* educat*))
# 8 #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
# 7 TS=((lifestyle* or life-style*) NEAR/5 (activ* or physcial*))

# 6 TS=((exercis* NEAR/2 aerobic*) or aerobic*)

# 5 TS=(sport* or danc* or walk* or bicycle*)

# 4 TS=(physical* educat*)

# 3 TS=(exercis* NEAR/5 (train* or physical* or activ*))

# 2 TS=(physical NEAR/5 (fit* or train* or activ* or endur* or exert*))

# 1 TS=(exercis* therap*)

Part 3  Updated Search June 2014

Search numbers:

<table>
<thead>
<tr>
<th>Database:</th>
<th>Interface:</th>
<th>Coverage:</th>
<th>Date:</th>
<th>Hits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMED</td>
<td>OvidSP</td>
<td>1985 to June 2014</td>
<td>17/06/14</td>
<td>28</td>
</tr>
<tr>
<td>CINAHL</td>
<td>EBSCOHost</td>
<td>1982-present</td>
<td>17/06/14</td>
<td>55</td>
</tr>
<tr>
<td>Cochrane Central Register of Controlled Trials</td>
<td>Cochrane Library, Wiley</td>
<td>Issue 5, 2014</td>
<td>17/06/14</td>
<td>112</td>
</tr>
<tr>
<td>Database of Abstracts of Reviews of Effects</td>
<td>Cochrane Library, Wiley</td>
<td>EBSCOHost</td>
<td>17/06/14</td>
<td>2</td>
</tr>
<tr>
<td>Embase</td>
<td>OvidSP</td>
<td>1974 to 2014 June 16</td>
<td>17/06/14</td>
<td>314</td>
</tr>
<tr>
<td>Ovid MEDLINE(R) In-Process &amp; Other Non-Indexed Citations and Ovid MEDLINE(R)</td>
<td>OvidSP</td>
<td>1946-present</td>
<td>17/06/14</td>
<td>171</td>
</tr>
<tr>
<td>PsycINFO</td>
<td>OvidSP</td>
<td>1967 to June Week 2 2014</td>
<td>17/06/14</td>
<td>31</td>
</tr>
<tr>
<td>SPORTdiscus</td>
<td>EBSCOHost</td>
<td></td>
<td>17/06/14</td>
<td>16</td>
</tr>
<tr>
<td>Science Citation Index, Social Science Citation Index &amp; Conference Proceedings Citation Index - Science</td>
<td>Web of Science Core Collection, Thomson Reuters</td>
<td>1945-present</td>
<td>17/06/14</td>
<td>198</td>
</tr>
</tbody>
</table>

Total: 927
Duplicates: 315
Final Total: 612

Limits:

Published or added to the databases since 2012
AMED:

1  exp Osteoarthritis/ 1959
2  Arthritis/ 954
3  (arthriti* or osteoarthriti* or osteo-arthriti*).ti,ab. 5070
4  1 or 2 or 3 5656
5  exp exercise/ or physical fitness/ or exp sports/ 12473
6  exp exercise therapy/ 5916
7  (physical* adj5 (fit* or train* or activ* or endur* or exert*)).tw. 6733
8  (physical* adj5 (fit* or train* or activ* or endur* or exert*)).tw. 6733
9  sport*.tw. 5467
10  walk*.tw. 8277
11  ((exercise* adj aerobic*) or aerobic*).tw. 1791
12  ((lifestyle or life-style) adj5 activ*).tw. 242
13  bicycle*.tw. 351
14  ((lifestyle or life-style) adj5 physical*).tw. 178
15  5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 29870
16  health education/ or exp patient education/ 2081
17  health promotion/ 1726
18  prevention/ 10876
19  behavior therapy/ or cognitive therapy/ 1658
20  Primary health care/ 467
21  Workplace/ 439
22  (promot* or educat* or program*).ti,ab. 29988
23  16 or 17 or 18 or 19 or 20 or 21 or 22 42602
clinical trials/ or randomized controlled trials/ or comparative study/ or double blind method/ or random allocation/

(random* or factorial* or crossover* or cross over* or placebo* or (doubl* adj blind*) or (singl* adj Blind*)) or assign* or allocat* or volunteer*).ti,ab.

Central & DARE:

#1 MeSH descriptor: [Physical Fitness] explode all trees
#2 MeSH descriptor: [Physical Exertion] explode all trees
#3 MeSH descriptor: [Physical Education and Training] explode all trees
#4 MeSH descriptor: [Sports] explode all trees
#5 MeSH descriptor: [Dancing] explode all trees
#6 MeSH descriptor: [Exercise Therapy] explode all trees
#7 physical* near activ*:ti,ab,kw
#8 physical* near train*:ti,ab,kw
#9 physical* near fit*:ti,ab,kw
#10 physical* near fit*:ti,ab,kw
#11 exercise* near activ*:ti,ab,kw
#12 exercise* near physical*:ti,ab,kw
#13 sport*:ti,ab,kw
#14 walk*:ti,ab,kw
#15 bicycle*:ti,ab,kw
#16 exercise* near aerobic*:ti,ab,kw
#17 ((life next style*) near activ*):ti,ab,kw
#18 life-style* near activ*:ti,ab,kw
#19 lifestyle* near activ*:ti,ab,kw
#20 ((life next style*) near physical*):ti,ab,kw
#21 life-style* near physical*:ti,ab,kw
#22 lifestyle* near physical*:ti,ab,kw
#23 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #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
#24 MeSH descriptor: [Health Education] this term only
#25 MeSH descriptor: [Patient Education as Topic] explode all trees
#26 MeSH descriptor: [Primary Prevention] this term only
#27 MeSH descriptor: [Health Promotion] explode all trees
#28 MeSH descriptor: [Behavior Therapy] this term only
#29 MeSH descriptor: [Cognitive Therapy] this term only
#30 MeSH descriptor: [Primary Health Care] this term only
#31 MeSH descriptor: [Workplace] this term only
#32 promot* or educat* or program*:ti,ab,kw
#33 #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32
#34 MeSH descriptor: [Osteoarthritis] explode all trees
#35 MeSH descriptor: [Arthritis] this term only
#36 arthriti* or osteoarthriti* or osteo-arthritis*:ti,ab,
#37 #34 or #35 or #36
#38 #23 and #33 and #37
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>S36</td>
<td>S34 AND S35</td>
<td>55</td>
</tr>
<tr>
<td>S35</td>
<td>EM 20121010-20140616</td>
<td>328,034</td>
</tr>
<tr>
<td>S34</td>
<td>S23 AND S33</td>
<td>512</td>
</tr>
<tr>
<td>S33</td>
<td>S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32</td>
<td>658,861</td>
</tr>
<tr>
<td>S32</td>
<td>TX allocat*</td>
<td>17,723</td>
</tr>
<tr>
<td>S31</td>
<td>TX control*</td>
<td>535,339</td>
</tr>
<tr>
<td>S30</td>
<td>TX assign*</td>
<td>52,811</td>
</tr>
<tr>
<td>S29</td>
<td>TX placebo*</td>
<td>25,712</td>
</tr>
<tr>
<td>S28</td>
<td>(MH “Placebos”)</td>
<td>7,027</td>
</tr>
<tr>
<td>S27</td>
<td>TX random*</td>
<td>150,340</td>
</tr>
<tr>
<td>S26</td>
<td>TX (clinic* N1 trial?)</td>
<td>94,296</td>
</tr>
<tr>
<td>S25</td>
<td>PT clinical trial</td>
<td>51,442</td>
</tr>
<tr>
<td>S24</td>
<td>(MH “Clinical Trials+”)</td>
<td>122,155</td>
</tr>
<tr>
<td>S23</td>
<td>S3 AND S13 AND S22</td>
<td>989</td>
</tr>
<tr>
<td>S22</td>
<td>S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21</td>
<td>634,247</td>
</tr>
<tr>
<td>S21</td>
<td>(TI promot* or educat* or program*) or (AB promot* or educat* or program*)</td>
<td>582,500</td>
</tr>
<tr>
<td>S20</td>
<td>(MH “Work Environment”)</td>
<td>15,006</td>
</tr>
<tr>
<td>S19</td>
<td>(MH “Primary Health Care”)</td>
<td>29,533</td>
</tr>
<tr>
<td>S18</td>
<td>(MH “Behavior Therapy+”)</td>
<td>11,885</td>
</tr>
<tr>
<td>S17</td>
<td>(MH “Health Promotion”)</td>
<td>29,455</td>
</tr>
<tr>
<td>S16</td>
<td>(MH “Preventive Health Care”)</td>
<td>9,186</td>
</tr>
<tr>
<td>S15</td>
<td>(MH “Patient Education”)</td>
<td>38,198</td>
</tr>
<tr>
<td>S14</td>
<td>(MH “Health Education”)</td>
<td>13,501</td>
</tr>
<tr>
<td>S13</td>
<td>S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12</td>
<td>142,982</td>
</tr>
<tr>
<td>S12</td>
<td>(TI sport* or walk* or bicycle* or exercis* or aerobic*) or (AB sport* or walk* or bicycle* or exercis* or aerobic*)</td>
<td>113,111</td>
</tr>
<tr>
<td>S11</td>
<td>(TI physical N5 (fit* or train* or activ* or endur* or exert*)) or (AB physical* N5 (fit* or train* or activ* or endur* or exert*))</td>
<td>10,505</td>
</tr>
<tr>
<td>S10</td>
<td>(TI exercis* N5 (train* or physical* or activ*)) or (AB exercis* N5 (train* or physical* or activ*))</td>
<td>10,619</td>
</tr>
<tr>
<td>S9</td>
<td>(MH “Exercise+”) or (MH “Therapeutic Exercise+”)</td>
<td>61,735</td>
</tr>
<tr>
<td>S8</td>
<td>(TI (lifestyle* or life-style*) N5 (activ* or physical*)) or (AB (lifestyle* or life-style*) N5 (activ* or physical*))</td>
<td>1,674</td>
</tr>
<tr>
<td>S7</td>
<td>(MH “Sports+”) or (MH “Dancing+”)</td>
<td>38,173</td>
</tr>
<tr>
<td>S6</td>
<td>(MH “Physical Education and Training”)</td>
<td>1,229</td>
</tr>
</tbody>
</table>
S5 (MH “Physical Fitness”) 7,894
S4 (MH “Exertion”) 3,588
S3 S1 OR S2 27,593
S2 TI ( arthriti* or osteoarthriti* or osteo-arthritis* ) OR AB ( arthriti* or osteoarthriti* or osteo-
arthritis* ) 21,921
S1 (MH "Arthritis") OR (MH "Osteoarthritis+") 14,884

Embase 1974 to 2014 June 16

44 42 and 43 314
43 (2012* or 2013* or 2014*).ed,dp,yr. 3038024
42 40 not 41 829
41 (animal/ or nonhuman/) not human/ 4615783
40 33 and 39 834
39 34 or 35 or 36 or 37 or 38 1430228
38 single blind procedure/ 18371
37 randomized controlled trial/ 345937
36 double blind procedure/ 116133
35 crossover procedure/ 39180
34 (random* or factorial* or crossover* or cross over* or placebo* or (doubl* adj blind*) or (singl* adj Blind*) or assign* or allocat* or volunteer*).ti,ab. 1353278
33 6 and 21 and 32 2147
32 program*.tw. 702239
31 educat*.tw. 468335
30 promot*.tw. 715318
29 workplace/ 24473
28 primary health care/ 46303
27 cognitive therapy/ 33386
26 behavior therapy/ 36942
25 health promotion/ 69471
24 primary prevention/ 27652
23 patient education/ 85763
22 health education/ 78737
21 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 554065
20 ((lifestyle or life-style) adj5 physical*).tw. 3678
19 bicycle*.tw. 13011
18 ((lifestyle or life-style) adj5 activ*).tw. 4409
17 ((exercise* adj aerobic*) or aerobic*).tw. 68307
16 walk*.tw. 90599
15 sport*.tw. 59117
14 (exercis* adj5 (train* or physical* or activ*)).tw. 48979
13 (physical* adj5 (fit* or train* or activ* or endur* or exert*)).tw. 102687
12 exp kinesiotherapy/ 48116
11 dancing/ 2551
10 exp sport/ 101422
9 physical education/ 10001
8 fitness/ 28054
7 exp exercise/ 210873
6 1 or 2 or 3 or 4 or 5 266867
5 (ankle/ or elbow/ or hand joint/ or hip/ or knee/ or shoulder/ or wrist/) and pain/ 9664
4 arthritis/ or chronic arthritis/ 56592
3 osteoarthritis/ or hand osteoarthritis/ or hip osteoarthritis/ or knee osteoarthritis/ 77461
2 arthriti*.ti,ab. 172469
1 (osteoarthriti* or osteo-arthriti*).ti,ab. 51822
50 48 and 49 171
49 (2012* or 2013* or 2014*).ed, dp, yr. 2973469
48 36 and 47 675
47 45 not 46 2878013
46 exp animals/ not humans.sh. 3949551
45 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 3355045
44 groups.ab. 1362855
43 trial.ab. 307626
42 randomly.ab. 214295
41 drug therapy.fs. 1705827
40 placebo.ab. 154797
39 randomized.ab. 296104
38 controlled clinical trial.pt. 88520
37 randomized controlled trial.pt. 375913
36 7 and 23 and 35 1440
35 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 1353601
34 program$.tw. 571030
33 promot$.tw. 615976
32 promot$.tw. 615976
31 Workplace/ 13636
30 Primary Health Care/ 54125
29 Cognitive Therapy/ 15801
28 Behavior Therapy/ 23702
27 exp Health Promotion/ 54262
26 Primary Prevention/ 14144
25 Patient Education as Topic/ 70228
24 Health Education/ 52143
23 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 378187
22 ((lifestyle or life-style) adj5 physical$).tw. 2757
21 ((lifestyle or life-style) adj5 activ$).tw. 3308
20 ((exercise$ adj3 aerobic$) or aerobics).tw. 6564
19 bicycle$.tw. 10565
18 walk$.tw. 71777
17 sport$.tw. 42913
16 (exercise$ adj5 (train$ or physical$ or activ$)).tw. 38047
15 (physical$ adj5 (fit$ or train$ or activ$ or endur$ or exertion$)).tw. 80688
14 exp Exercise/ 118672
<table>
<thead>
<tr>
<th>Rank</th>
<th>Term</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>exp Exercise Therapy/</td>
<td>30004</td>
</tr>
<tr>
<td>12</td>
<td>Dancing/</td>
<td>1860</td>
</tr>
<tr>
<td>11</td>
<td>exp Sports/</td>
<td>127134</td>
</tr>
<tr>
<td>10</td>
<td>exp &quot;Physical Education and Training&quot;/</td>
<td>13400</td>
</tr>
<tr>
<td>9</td>
<td>Physical Fitness/</td>
<td>21827</td>
</tr>
<tr>
<td>8</td>
<td>Physical Exertion/</td>
<td>52808</td>
</tr>
<tr>
<td>7</td>
<td>1 or 2 or 3 or 4 or 5 or 6</td>
<td>189448</td>
</tr>
<tr>
<td>6</td>
<td>arthriti*.ti,ab.</td>
<td>130597</td>
</tr>
<tr>
<td>5</td>
<td>(osteoarthriti* or osteo-arthritis*).ti,ab.</td>
<td>38517</td>
</tr>
<tr>
<td>4</td>
<td>(foot/ or hip/ or knee/ or elbow/ or hand/ or shoulder/) and pain/</td>
<td>2886</td>
</tr>
<tr>
<td>3</td>
<td>(elbow joint/ or exp foot joints/ or exp hand joints/ or hip joint/ or knee joint/ or shoulder joint/) and pain/</td>
<td>4132</td>
</tr>
<tr>
<td>2</td>
<td>Arthritis/</td>
<td>23597</td>
</tr>
<tr>
<td>1</td>
<td>osteoarthritis/ or osteoarthritis, hip/ or osteoarthritis, knee/ or osteoarthritis, spine/</td>
<td>43014</td>
</tr>
</tbody>
</table>
39 37 and 38
38 (2012* or 2013* or 2014*).up,dp,yr.
37 32 and 36
36 33 or 34 or 35
35 ((singl* or doubl*) adj bind*).tw.
34 clinical trials/
33 random*.tw. or trial.ab. or groups.ab. or factorial*.tw. or crossover*.tw. or cross over.tw. or placebo*.tw. or assign*.tw. or allocat*.tw. or volunteer*.tw.
32 4 and 18 and 31
31 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30
30 program$.tw.
29 educat$.tw.
28 promot$.tw.
27 workplace*.tw.
26 cognitive behavior therapy/
25 cognitive therapy/
24 behavior therapy/
23 primary health care/
22 prevention/
21 health promotion/
20 client education/
19 health education/
18 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17
17 ((lifestyle or life-style) adj5 physical$).tw.
16 ((lifestyle or life-style) adj5 activ$).tw.
15 ((exercise$ adj3 aerobic$) or aerobics).tw.
14 bicycle$.tw.
13 walk$.tw.
12 sport$.tw.
11 (exercis$ adj5 (train$ or physical$ or activ$)).tw.
10 (physical$ adj5 (fit$ or train$ or activ$ or endur$ or exertion$)).tw.
9 exp sports/
8 exp sports/
7 physical activity/
6 physical fitness/
5 exp exercise/
4 1 or 2 or 3
<table>
<thead>
<tr>
<th></th>
<th>Term</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(osteoarthrit* or osteo-arthrit*).ti,ab.</td>
<td>1158</td>
</tr>
<tr>
<td>2</td>
<td>arthriti*.ti,ab.</td>
<td>3901</td>
</tr>
<tr>
<td>3</td>
<td>arthritis/</td>
<td>1653</td>
</tr>
<tr>
<td>S19</td>
<td>S4 AND S10 AND S17 AND S18</td>
<td>53</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------</td>
<td>----</td>
</tr>
<tr>
<td>S18</td>
<td>controlled OR randomized OR random-assignment OR double-blind OR single-blind OR clinical OR placebos OR comparative OR evaluation OR study</td>
<td>407,780</td>
</tr>
<tr>
<td>S17</td>
<td>S11 OR S12 OR S13 OR S14 OR S15 OR S16</td>
<td>20,101</td>
</tr>
<tr>
<td>S16</td>
<td>workplace</td>
<td>4,392</td>
</tr>
<tr>
<td>S15</td>
<td>primary health care</td>
<td>1,417</td>
</tr>
<tr>
<td>S14</td>
<td>cognitive therapy</td>
<td>928</td>
</tr>
<tr>
<td>S13</td>
<td>health promotion</td>
<td>12,557</td>
</tr>
<tr>
<td>S12</td>
<td>primary prevention</td>
<td>745</td>
</tr>
<tr>
<td>S11</td>
<td>patient education</td>
<td>1,134</td>
</tr>
<tr>
<td>S10</td>
<td>S5 OR S6 OR S7 OR S8 OR S9</td>
<td>905,550</td>
</tr>
<tr>
<td>S9</td>
<td>housebound</td>
<td>12</td>
</tr>
<tr>
<td>S8</td>
<td>aerobics or circuits or swimming or aqua or jogging or running or cycling or fitness or yoga or walking or sport</td>
<td>895,268</td>
</tr>
<tr>
<td>S7</td>
<td>sedentary</td>
<td>5,830</td>
</tr>
<tr>
<td>S6</td>
<td>fitness</td>
<td>142,184</td>
</tr>
<tr>
<td>S5</td>
<td>‘physical activity’</td>
<td>40,894</td>
</tr>
<tr>
<td>S4</td>
<td>S1 OR S2 OR S3</td>
<td>7,719</td>
</tr>
<tr>
<td>S3</td>
<td>DE &quot;ARTHРИТIS&quot;</td>
<td>1,404</td>
</tr>
<tr>
<td>S2</td>
<td>DE &quot;OSTEОARTHРИТIS&quot;</td>
<td>3,351</td>
</tr>
<tr>
<td>S1</td>
<td>TI ( arthriti* or osteoarthriti* or osteo-arthritis* ) OR AB ( arthriti* or osteoarthriti* or osteo-arthritis* )</td>
<td>6,958</td>
</tr>
</tbody>
</table>

**Additional search methods:**

OpenGREY – 1 result – 17/06/2014
Search terms = (arthritis OR osteoarthritis) AND (Exercise OR "physical activity" OR sport OR sports)

**Knee osteoarthritis (origin, progression, therapy and prevention)**
[http://www.opengrey.eu/item/display/10068/893093](http://www.opengrey.eu/item/display/10068/893093)

ClinicalTrials.gov [http://clinicaltrials.gov](http://clinicaltrials.gov) – 146 results - 17/06/2014
Search terms = (arthritis OR osteoarthritis) AND (Exercise OR "physical activity" OR sport OR sports)