

Hypertension search strategy 1

This literature search strategy was used for the following reviews;

- Relaxation therapies

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017

<https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

For more detailed information, please see the Methodology Review. [\[Add cross reference\]](#)

A.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

Table 1: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 02 October 2018	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 02 October 2018	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to Issue 8 of 12, August 2018 CENTRAL to Issue 7 of 12, July 2018 DARE and NHSEED to Issue 2 of 4, April 2015 HTA to Issue 4 of 4, October 2016	None
CINAHL, Current Nursing and Allied Health Literature (EBSCO)	Inception – 02 October 2018	Exclusions
AMED, Allied and Complementary Medicine (OVID)	Inception – 02 October 2018	Exclusions Randomised controlled trials Systematic review studies

Medline (Ovid) search terms

1.	exp Hypertension/
2.	hypertens*.ti,ab.
3.	(elevat* adj2 blood adj pressur*).ti,ab.
4.	(high adj blood adj pressur*).ti,ab.
5.	(increase* adj2 blood pressur*).ti,ab.
6.	((systolic or diastolic or arterial) adj2 pressur*).ti,ab.
7.	or/1-6
8.	exp pregnancy/

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9.	exp Hypertension, Pregnancy-Induced/ not exp Hypertension/
10.	(pre eclampsia or pre-eclampsia or preeclampsia).ti,ab.
11.	exp Hypertension, Portal/ not exp Hypertension/
12.	exp Hypertension, Pulmonary/ not exp Hypertension/
13.	exp Intracranial Hypertension/ not exp Hypertension/
14.	exp Ocular Hypertension/ not exp Hypertension/
15.	exp Diabetes Mellitus, Type 1/ not exp Diabetes Mellitus, Type 2/
16.	or/8-15
17.	7 not 16
18.	letter/
19.	editorial/
20.	news/
21.	exp historical article/
22.	Anecdotes as Topic/
23.	comment/
24.	case report/
25.	(letter or comment*).ti.
26.	or/18-25
27.	randomized controlled trial/ or random*.ti,ab.
28.	26 not 27
29.	animals/ not humans/
30.	exp Animals, Laboratory/
31.	exp Animal Experimentation/
32.	exp Models, Animal/
33.	exp Rodentia/
34.	(rat or rats or mouse or mice).ti.
35.	or/28-34
36.	17 not 35
37.	(exp child/ or exp pediatrics/ or exp infant/) not (exp a dolescent/ or exp adult/ or exp middle age/ or exp aged/)
38.	36 not 37
39.	limit 38 to English language
40.	exp Mind-Body Therapies/
41.	(mind body or mindbody).ti,ab.
42.	((relax* or breath*) adj3 (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*)).ti,ab.
43.	((stress* or cognitive or talk* or assertiveness or anger) adj3 (treatment* or therap* or train* or educat* or manag* or technique*)).ti,ab.
44.	((behaviour* or behavior*) adj3 (intervention* or therap* or train* or educat* or manag*)).ti,ab.
45.	Feedback, Psychological/
46.	(biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback).ti,ab.
47.	((physiologic* or psychophysiologic*) adj2 (feedback or feed back)).ti,ab.
48.	exp Meditation/
49.	(meditat* or meditation* or mindful*).ti,ab.

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50.	autogenic*.ti,ab.
51.	((hypnosis or hypnot* or reverie or trance) adj2 (therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*)).ti,ab.
52.	((imagery or imagination or imagining) adj3 (relax* or guide* or led or lead*)).ti,ab.
53.	(yoga* or yogic or pilates).ti,ab.
54.	Muscle Relaxation/
55.	((muscle* or muscular*) adj3 (relax* or stretch* or flex* or exercise*)).ti,ab.
56.	or/40-55
57.	39 and 56
58.	randomized controlled trial.pt.
59.	controlled clinical trial.pt.
60.	randomi#ed.ti,ab.
61.	placebo.ab.
62.	randomly.ti,ab.
63.	Clinical Trials as topic.sh.
64.	trial.ti.
65.	or/58-64
66.	Meta-Analysis/
67.	exp Meta-Analysis as Topic/
68.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
69.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
70.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
71.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
72.	(search* adj4 literature).ab.
73.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
74.	cochrane.jw.
75.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
76.	or/66-75
77.	65 or 76
78.	57 and 77

Embase (Ovid) search terms

1.	exp Hypertension/
2.	hypertens*.ti,ab.
3.	(elevat* adj2 blood adj pressur*).ti,ab.
4.	(high adj blood adj pressur*).ti,ab.
5.	(increase* adj2 blood pressur*).ti,ab.
6.	((systolic or diastolic or arterial) adj2 pressur*).ti,ab.
7.	or/1-6
8.	exp pregnancy/
9.	exp Maternal Hypertension/
10.	(pre eclampsia or pre-eclampsia or preeclampsia).ti,ab.
11.	exp Hypertension, Portal/ not exp Hypertension/
12.	exp Hypertension, Pulmonary/ not exp Hypertension/

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13.	exp Intracranial Hypertension/
14.	exp Ocular Hypertension/ not exp Hypertension/
15.	exp Diabetes Mellitus, Type 1/ not exp Diabetes Mellitus, Type 2/
16.	or/8-15
17.	7 not 16
18.	letter.pt. or letter/
19.	note.pt.
20.	editorial.pt.
21.	case report/ or case study/
22.	(letter or comment*).ti.
23.	or/18-22
24.	randomized controlled trial/ or random*.ti,ab.
25.	23 not 24
26.	animal/ not human/
27.	nonhuman/
28.	exp Animal Experiment/
29.	exp Experimental Animal/
30.	animal model/
31.	exp Rodent/
32.	(rat or rats or mouse or mice).ti.
33.	or/25-32
34.	17 not 33
35.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
36.	34 not 35
37.	limit 36 to English language
38.	*Alternative medicine/
39.	(mind body or mindbody).ti,ab.
40.	((relax* or breath*) adj3 (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*)).ti,ab.
41.	((stress* or cognitive or talk* or assertiveness or anger) adj3 (treatment* or therap* or train* or educat* or manag* or technique*)).ti,ab.
42.	((behaviour* or behavior*) adj3 (intervention* or therap* or train* or educat* or manag*)).ti,ab.
43.	*feedback system/
44.	(biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback).ti,ab.
45.	((physiologic* or psychophysiologic*) adj2 (feedback or feed back)).ti,ab.
46.	exp *Meditation/
47.	Transcendental, meditation/
48.	(meditat* or meditation* or mindful*).ti,ab.
49.	autogenic*.ti,ab.
50.	((hypnosis or hypnot* or reverie or trance) adj2 (therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*)).ti,ab.
51.	((imagery or imagination or imagining) adj3 (relax* or guide* or led or lead*)).ti,ab.
52.	(yoga* or yogic or pilates).ti,ab.
53.	*Muscle Relaxation/

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54.	((muscle* or muscular*) adj3 (relax* or stretch* or flex* or exercise*)).ti,ab.
55.	or/38-54
56.	37 and 55
57.	random*.ti,ab.
58.	factorial*.ti,ab.
59.	(crossover* or cross over*).ti,ab.
60.	((doubl* or singl*) adj blind*).ti,ab.
61.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
62.	crossover procedure/
63.	single blind procedure/
64.	randomized controlled trial/
65.	double blind procedure/
66.	or/57-65
67.	systematic review/
68.	meta-analysis/
69.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
70.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
71.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
72.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
73.	(search* adj4 literature).ab.
74.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
75.	cochrane.jw.
76.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
77.	or/67-76
78.	66 or 77
79.	56 and 78

Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Hypertension] explode all trees
#2.	hypertens*:ti,ab
#3.	(elevat* near/2 blood next pressur*):ti,ab
#4.	(high near/1 blood near/1 pressur*):ti,ab
#5.	(increase* near/2 blood pressur*):ti,ab
#6.	((systolic or diastolic or arterial) near/2 pressur*):ti,ab
#7.	(or #1-#6)
#8.	MeSH descriptor: [Mind-Body Therapies] explode all trees
#9.	(mind body or mindbody):ti,ab
#10.	((relax* or breath*) near/3 (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*)):ti,ab
#11.	((stress* or cognitive or talk* or assertiveness or anger) near/3 (treatment* or therap* or train* or educat* or manag* or technique*)):ti,ab
#12.	((behaviour* or behavior*) near/3 (intervention* or therap* or train* or educat* or manag*)):ti,ab

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#13.	MeSH descriptor: [Feedback, Psychological] explode all trees
#14.	(biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback):ti,ab
#15.	((physiologic* or psychophysiologic*) near/2 (feedback or feed back)):ti,ab
#16.	MeSH descriptor: [Meditation] explode all trees
#17.	(meditat* or meditation* or mindful*):ti,ab
#18.	autogenic*:ti,ab
#19.	((hypnosis or hypnot* or reverie or trance) near/2 (therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*)):ti,ab
#20.	((imagery or imagination or imagining) near/3 (relax* or guide* or led or lead*)):ti,ab
#21.	(yoga* or yogic or pilates):ti,ab
#22.	MeSH descriptor: [Muscle Relaxation] explode all trees
#23.	((muscle* or muscular*) near/3 (relax* or stretch* or flex* or exercise*)):ti,ab
#24.	(or #8-#23)
#25.	#7 and #24

CINAHL (EBSCO) search terms

S1.	MH hypertension
S2.	TI hypertens* OR AB hypertens*
S3.	TI blood pressure* OR AB blood pressure*
S4.	TI ((high or elevat* or increas*)) OR AB ((high or elevat* or increas*))
S5.	TI (systolic or diastolic or arterial) AND AB (systolic or diastolic or arterial)
S6.	S4 OR S5
S7.	S3 AND S6
S8.	S1 OR S2 OR S7
S9.	(MH "Mind Body Techniques+") OR (MH "Hypnosis+") OR (MM "Meditation") OR (MH "Relaxation Techniques+") OR (MH "Yoga+") OR (MM "Buteyko Method")
S10.	TI (mind body or mindbody) OR AB (mind body or mindbody)
S11.	TI (relax* or breath*) OR AB (relax* or breath*)
S12.	TI (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*) OR AB (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*)
S13.	S11 AND S12
S14.	TI (stress* or cognitive or talk* or assertiveness or anger) OR AB (stress* or cognitive or talk* or assertiveness or anger)
S15.	TI (treatment* or therap* or train* or educat* or manag* or technique*) OR AB (treatment* or therap* or train* or educat* or manag* or technique*)
S16.	S14 AND S15
S17.	TI (behaviour* or behavior*) OR AB (behaviour* or behavior*)
S18.	TI (intervention* or therap* or train* or educat* or manag*) OR AB (intervention* or therap* or train* or educat* or manag*)
S19.	S17 AND S18
S20.	TI ((biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback)) OR AB ((biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback))
S21.	TI (physiologic* or psychophysiologic*) OR AB (physiologic* or psychophysiologic*)
S22.	TI (feedback or feed back) OR AB (feedback or feed back)
S23.	S21 AND S22

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S24.	MH Meditation
S25.	TI ((meditat* or meditation* or mindful*)) OR AB ((meditat* or meditation* or mindful*))
S26.	TI autogenic* AND AB autogenic*
S27.	TI ((hypnosis or hypnot* or reverie or trance)) OR AB ((hypnosis or hypnot* or reverie or trance))
S28.	(therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*) OR AB (therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*)
S29.	S27 AND S28
S30.	TI (imagery or imagination or imagining) OR AB (imagery or imagination or imagining)
S31.	TI (relax* or guide* or led or lead*) OR AB (relax* or guide* or led or lead*)
S32.	S30 AND S31
S33.	TI ((yoga* or yogic or pilates)) OR AB ((yoga* or yogic or pilates))
S34.	MH Muscle Relaxation
S35.	TI (muscle* or muscular*) OR AB (muscle* or muscular*)
S36.	TI (relax* or stretch* or flex* or exercise*) OR AB (relax* or stretch* or flex* or exercise*)
S37.	S35 AND S36
S38.	S9 OR S10 OR S13 OR S16 OR S19 OR S20 OR S23 OR S24 OR S25 OR S26 OR S29 OR S32 OR S34 OR S37
S39.	S8 AND S38 Limiters - English Language; Exclude MEDLINE records; Human; Publication Type: Clinical Trial, Journal Article, Meta Analysis, Randomized Controlled Trial, Review, Systematic Review; Age Groups: All Adult; Language: English

AMED (Ovid) search terms

1.	exp Hypertension/
2.	hypertens*.ti,ab.
3.	(elevat* adj2 blood adj pressur*).ti,ab.
4.	(high adj blood adj pressur*).ti,ab.
5.	(increase* adj2 blood pressur*).ti,ab.
6.	((systolic or diastolic or arterial) adj2 pressur*).ti,ab.
7.	or/1-6
8.	case report/
9.	(letter or comment*).ti.
10.	animals/ not humans/
11.	or/8-10
12.	7 not 11
13.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp Middle Aged/ or exp aged/)
14.	12 not 13
15.	limit 14 to English
16.	(mind body or mindbody).ti,ab.
17.	((relax* or breath*) adj3 (behavior* or behaviour* or therap* or technic* or technique* or practic* or exerc* or educat* or manag* or train* or method*)).ti,ab.
18.	((stress* or cognitive or talk* or assertiveness or anger) adj3 (treatment* or therap* or train*

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	or educat* or manag* or technique*).ti,ab.
19.	((behaviour* or behavior*) adj3 (intervention* or therap* or train* or educat* or manag*).ti,ab.
20.	(biofeedback or bio feedback or neurofeedback or neuro feedback or myofeedback or myo feedback).ti,ab.
21.	((physiologic* or psychophysiologic*) adj2 (feedback or feed back)).ti,ab.
22.	(meditat* or meditation* or mindful*).ti,ab.
23.	autogenic*.ti,ab.
24.	((hypnosis or hypnot* or reverie or trance) adj2 (therap* or train* or technique* or relax* or guide* or led or lead* or treatment* or intervention*).ti,ab.
25.	((imagery or imagination or imagining) adj3 (relax* or guide* or led or lead*).ti,ab.
26.	(yoga* or yogic or pilates).ti,ab.
27.	((muscle* or muscular*) adj3 (relax* or stretch* or flex* or exercise*).ti,ab.
28.	breathing therapies/ or mind body medicine/ or yoga/
29.	behavior therapy/ or exp hypnosis/ or imagery/
30.	Complementary therapies/
31.	exp Exercise therapy/
32.	exp Meditation/ or Muscle Relaxation/
33.	or/16-32
34.	15 and 33
35.	Meta-Analysis/
36.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
37.	((systematic* or evidence*) adj3 (review* or overview*).ti,ab.
38.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
39.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
40.	(search* adj4 literature).ab.
41.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
42.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
43.	or/35-42
44.	randomized controlled trials/
45.	randomized controlled trial.pt.
46.	controlled clinical trial.pt.
47.	placebo.ab.
48.	random*.ti,ab.
49.	trial.ti,ab.
50.	groups.ab.
51.	or/44-50
52.	43 or 51
53.	34 and 52

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A.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to hypertension in adults population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics, economic modelling and quality of life studies.

Table 2: Database date parameters and filters used

Database	Dates searched	Search filter used
Medline	2014 – 28 August 2018	Exclusions Health economics studies
Embase	2014 – 28 August 2018	Exclusions Health economics studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 28 August 2018 NHSEED - Inception to March 2015	None

Medline (Ovid) search terms

1.	exp Hypertension/
2.	hypertens*.ti,ab.
3.	(elevat* adj2 blood adj pressur*).ti,ab.
4.	(high adj blood adj pressur*).ti,ab.
5.	(increase* adj2 blood pressur*).ti,ab.
6.	((systolic or diastolic or arterial) adj2 pressur*).ti,ab.
7.	or/1-6
8.	letter/
9.	editorial/
10.	news/
11.	exp historical article/
12.	Anecdotes as Topic/
13.	comment/
14.	case report/
15.	(letter or comment*).ti.
16.	or/8-15
17.	randomized controlled trial/ or random*.ti,ab.
18.	16 not 17
19.	animals/ not humans/
20.	exp Animals, Laboratory/
21.	exp Animal Experimentation/
22.	exp Models, Animal/
23.	exp Rodentia/
24.	(rat or rats or mouse or mice).ti.
25.	or/18-24
26.	7 not 25

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27.	limit 26 to English language
28.	Economics/
29.	Value of life/
30.	exp "Costs and Cost Analysis"/
31.	exp Economics, Hospital/
32.	exp Economics, Medical/
33.	Economics, Nursing/
34.	Economics, Pharmaceutical/
35.	exp "Fees and Charges"/
36.	exp Budgets/
37.	budget*.ti,ab.
38.	cost*.ti.
39.	(economic* or pharmaco?economic*).ti.
40.	(price* or pricing*).ti,ab.
41.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
42.	(financ* or fee or fees).ti,ab.
43.	(value adj2 (money or monetary)).ti,ab.
44.	or/28-43
45.	27 and 44

Embase (Ovid) search terms

1.	exp Hypertension/
2.	hypertens*.ti,ab.
3.	(elevat* adj2 blood adj pressur*).ti,ab.
4.	(high adj blood adj pressur*).ti,ab.
5.	(increase* adj2 blood pressur*).ti,ab.
6.	((systolic or diastolic or arterial) adj2 pressur*).ti,ab.
7.	or/1-6
8.	letter.pt. or letter/
9.	note.pt.
10.	editorial.pt.
11.	case report/ or case study/
12.	(letter or comment*).ti.
13.	or/8-12
14.	randomized controlled trial/ or random*.ti,ab.
15.	13 not 14
16.	animal/ not human/
17.	nonhuman/
18.	exp Animal Experiment/
19.	exp Experimental Animal/
20.	animal model/
21.	exp Rodent/
22.	(rat or rats or mouse or mice).ti.

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23.	or/15-22
24.	7 not 23
25.	limit 24 to English language
26.	health economics/
27.	exp economic evaluation/
28.	exp health care cost/
29.	exp fee/
30.	budget/
31.	funding/
32.	budget*.ti,ab.
33.	cost*.ti.
34.	(economic* or pharmaco?economic*).ti.
35.	(price* or pricing*).ti,ab.
36.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
37.	(financ* or fee or fees).ti,ab.
38.	(value adj2 (money or monetary)).ti,ab.
39.	or/26-38
40.	25 and 39

NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Hypertension EXPLODE ALL TREES IN NHSEED,HTA
#2.	(Hypertens*) IN NHSEED, HTA
#3.	(elevat* adj2 blood adj pressur*) IN NHSEED, HTA
#4.	(high adj blood adj pressur*) IN NHSEED, HTA
#5.	(increase* adj2 blood pressur*) IN NHSEED, HTA
#6.	((systolic or diastolic or arterial) adj2 pressur*) IN NHSEED, HTA
#7.	#1 OR #2 OR #3 OR #4 OR #5 OR #6

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