Appendix A – Searching, selection criteria and screening

A1 – Search methods

A1.1 – Electronic searches

The following bibliographic databases were searched, from inception to 1st July 2020, with an updated search conducted on 26/07/2021: MEDLINE (via Ovid), Embase (via Elsevier), CINAHL (via EBSCO), AMED (via Ovid), PsycINFO (via Ovid), PEDro (http://www.pedro.org.au), Cochrane library (via Wiley) and the WHO Virtual Health Library (which includes LILACS and other sources) (via BIREME). The WHO ICTRP and ClinicalTrials.gov were searched via the Cochrane CENTRAL database within the Cochrane Library. No limits, filters or restrictions on time period covered by the search were used.

No language restrictions were applied. The database provider, coverage and search strings used for each database are provided below in Appendix A2.1.

A1.2 – Other methods

Records in the Ida P. Rolf Library of Structural Integration were hand searched and references in related reviews checked on 14/10/2020 with an update on 27/07/2021. Forward and backward citations search of included studies and related literature and systematic reviews were conducted in Scopus on 26/20/2020 and updated on 27/07/2021. Evidence reviews commissioned by Australian government bodies and other national or international bodies that are recommended by the Natural Therapies Review Expert Advisory Panel (NTREAP) or NTWC members, were to be considered for inclusion in the review however none were provided. In accordance with the Official Order, grey literature was considered out of scope.

A2 – Search strategy

A2.1 – Searches of bibliographic database

Searches of bibliographic databases were conducted on 01/07/2020, with updated searches conducted on 26/07/2021. The following databases were searched: MEDLINE, the Cochrane Library, Embase, CINAHL, AMED, PsychINFO, PEDro and the WHO Virtual health Library. The WHO ICTRP and ClinicalTrials.gov were searched via the Cochrane CENTRAL database within the Cochrane Library. No limits, filters or restrictions on time period covered by the search were used.

The database, database provider, period of coverage, and search strings used for each, are provided below. The results of the searches and screening are presented in the PRISMA flow diagram and accompanying text in the Main Report.

MEDLINE (via Ovid,1950 to 1st July 2020 with update to 26/07/2021)
(exp Fascia/ and exp Massage/) or Rolfing.ti,ab. or Rolf.ti,ab. or Structural integration.ti,ab. or Applied kinesiology.ti,ab. or Deep tissue massage.ti,ab. or ((myofascial or fascial) adj2 (Release or Massage or Manipulation or Manipulations)).ti,ab. OR (Hellerwork or Structural Visceral Integration or Pelvic lift or Diaphragm* release or Somatic movement education).ti,ab.

Cochrane Library (via Wiley, searched on 1st July 2020 with update to 26/07/2021)
([mh Fascia] AND [mh Massage]) OR Rolfing:ti,ab OR Rolf:ti,ab OR "Structural integration":ti,ab OR "Applied kinesiology":ti,ab OR "Deep tissue massage":ti,ab OR ((myofascial:ti,ab OR fascial:ti,ab) NEAR/2 (Release:ti,ab OR Massage:ti,ab OR Manipulation:ti,ab OR Manipulations:ti,ab)) OR (Hellerwork OR "Structural Visceral Integration" OR "Pelvic lift" OR "Diaphragm* release" OR "Somatic movement education"):ti,ab

Embase (via Elsevier, 1974 to 1st July 2020 with update to 26/07/2021)
('rolfing'/exp OR ('Fascia'/exp/mj AND 'Massage'/exp/mj) OR Rolfing:ti,ab OR Rolf:ti,ab OR "Structural integration":ti,ab OR "Applied kinesiology":ti,ab OR "Deep tissue massage":ti,ab OR ((myofascial OR fascial) NEAR/2 (Release OR Massage OR Manipulation OR Manipulations)):ti,ab) OR (Hellerwork OR "Structural Visceral Integration" OR "Pelvic lift" OR "Diaphragm* release" OR "Somatic movement education"):ti,ab

CINAHL (Cummulative Index to Nursing and Allied Health Literature) (via EBSCO, 1981 to 1st July 2020 with update to 26/07/2021)
((MH "Rolfing") OR ((MH "Fascia+") AND (MH "Massage+")) OR TI Rolfing OR AB Rolfing OR TI Rolf OR AB Rolf OR TI "Structural integration" OR AB "Structural integration" OR TI "Applied kinesiology" OR AB "Applied kinesiology" OR TI "Deep tissue massage" OR AB "Deep tissue massage" OR ((TI myofascial OR AB myofascial OR TI fascial OR AB fascial) N2 (TI Release OR AB Release OR TI Massage OR AB Massage OR TI Manipulation OR AB Manipulation OR TI Manipulations OR AB Manipulations))) OR (TI Hellerwork OR AB Hellerwork OR TI "Structural Visceral Integration" OR AB "Structural Visceral Integration" OR TI "Pelvic lift" OR AB "Pelvic lift" OR TI "Diaphragm* release" OR AB "Diaphragm* release" OR TI "Somatic movement education" OR AB "Somatic movement education")

AMED (via Ovid, 1985 to 1st July 2020 with update to 26/07/2021)
((exp Fascia/ AND exp Massage/) OR Rolfing.ti,ab. OR Rolf.ti,ab. OR Structural integration.ti,ab. OR Applied kinesiology.ti,ab. OR Deep tissue massage.ti,ab. OR ((myofascial.ti,ab. OR fascial.ti,ab.) adj2 (Release.ti.ab. OR Massage.ti.ab. OR Manipulation.ti,ab. OR Manipulations.ti,ab.))) OR (Hellerwork or Structural Visceral Integration or Pelvic lift or Diaphragm* release or Somatic movement education).ti,ab.

PsycINFO (via Ovid, 1806 to 1st July 2020 with update to 26/07/2021)
(Rolfing.ti,ab. OR Rolf.ti,ab. OR Structural integration.ti,ab. OR Applied kinesiology.ti,ab. OR Deep tissue massage.ti,ab. OR ((myofascial.ti,ab. OR fascial.ti,ab.) adj2 (Release.ti,ab. OR Massage.ti,ab. OR Manipulation.ti,ab. OR Manipulations.ti,ab.))) OR (Hellerwork or Structural Visceral Integration or Pelvic lift or Diaphragm* release or Somatic movement education).ti,ab.

PEDro (searched on 1st July 2020 with update to 26/07/2021)
Rolfing OR Rolf OR “Structural integration” OR “Myofascial release” OR “Myofascial massage” OR ‘Myofascial manipulation’ OR ‘Myofascial manipulations’ OR Hellerwork OR "Structural Visceral Integration" OR "Pelvic lift" OR "Diaphragm release" OR "Somatic movement education"

WHO Virtual Health Library (excluding MEDLINE) (via BIREME, 1980 to 1st July 2020 with update to 26/07/2021)
Rolfing OR Rolf OR "Structural integration" OR "Applied kinesiology" OR "Deep tissue massage" OR ((myofascial OR fascial) AND (Release OR Massage OR Manipulation OR Manipulations)) OR (Hellerwork OR "Structural Visceral Integration" OR "Pelvic lift" OR "Diaphragm* release" OR "Somatic movement education")

Ida P. Rolf Library (hand-searched on 14/10/2020, with update to 27/07/2021)
Handsearching of records in the Ida P. Rolf Library of Structural Integration was performed on 14/10/2020 with updated search on 27/07/2021.

A2.2 – Other searches

The reference lists of reports included in the review and related reviews,(1-6) were retrieved from Scopus on 26/10/2020. None of these reviews provided additional includable studies.

Scopus was also used to search for studies published subsequently to and citing the studies that were included in the review on 27 July 2021.

Evidence reviews commissioned by Australian government bodies and other national or international bodies that are recommended by the National Therapies Review Expert Advisory Panel (NTREAP) or NTWC members, were to be considered for inclusion in the review, however, none were provided.

A3 – Literature search results

Six studies described in 9 reports(7-15) were included in this review, after screening 2948 records retrieved by database and trial registry searches, and 1934 records retrieved via other methods, and assessing 65 reports in full text. Fifty six of the 65 reports assessed in full text were excluded from the review, including 2 reports that could not be assessed for eligibility (noted as Records awaiting classification). Full reference details for each excluded study, the source of the study and reason for exclusion, are provided in Appendix C.

A4 – Study selection criteria

A4.1 – Types of studies

Evidence for Rolfing from randomised controlled trials (RCTs) and non-randomised studies of interventions (NRSIs) was included. In accordance with The Cochrane Handbook (Section 24.1.1), the two main justifications for inclusion of NRSIs in a systematic review are: 1) the available RCTs addresses the question indirectly or incompletely, 2) the RCT study design is unsuitable.(16) While the inclusion of NRSI studies in addition to RCTs would have allowed for an assessment of the effectiveness of Rolfing across a wider range of conditions and across the full breadth of the scope of practice, no NRSIs were identified that met the eligibility criteria for inclusion in this review.

Study eligibility was assessed against the combination of design features for each type of NRSI in Table 1 below (Table 1). This approach requires consideration of the combination of features associated with different NRSI designs including timing of outcome data, how the intervention effect is estimated, confounding controlled, and study groups are formed, similar to the 32-item design checklist proposed by The Cochrane Collaboration to characterize features of strong and weak designs (The Cochrane Handbook Section 24.2.2). Design labels were not used as a means to assess eligibility as per The Cochrane Handbook (Section 24.2.2) because labels are used inconsistently. Non-randomised studies that did not include a contemporaneous control group were excluded, as were those with a relatively limited ability to estimate the causal effect of an intervention based on key design features related to the availability of outcome data and means for estimating intervention effect (e.g., timing of outcome measurement in relation to intervention, number of timepoints and measurement in the same or different individuals).(17) Also excluded from the review were studies without a control group that obtained outcome data from the same study participants at a single point in time before, and a single point in time after an intervention, and studies that examined associations between receipt of an intervention and outcomes at a single point in time

Randomised controlled trials that used a truly random sequence to allocate participants to study groups and controlled trials where participants were allocated to an intervention based on quasi-random methods (e.g., alternate allocation, or allocation by date of birth), were included.

Table 1: Description and design features of non-randomised studies that were included and excluded from the review (table is based on descriptions provided in the Cochrane Handbook Version 5)(16)

Commonly used study design label	Description of the design
Design features of non-randomised studies that were eligible for inclusion in the review	
Controlled before-and-after study	Observations are made at a single time point before and a single time point after the implementation of an intervention in a study group that receives the intervention and a study group that does not
Cohort study	A defined group of people are followed over time and associations between different interventions received and subsequent outcomes is examined. A prospective study of this design will recruit participants before an intervention and follow them forward in time. A retrospective study of this design identifies participants from past records which describe the interventions received, and follows them from the time of those records
Case-control study	A group of people with and without a specific outcome of interest are included and the association between the outcome and prior receipt of an intervention is examined
Interrupted time series	Observations are made in a study group at multiple time points before and after an intervention with or without a control group
Design features of non-randomised studies that were not eligible for inclusion in the review	
Cross-sectional study	Information on interventions received and current health outcomes are obtained from a group of participants at a single point in time
Uncontrolled before-and-after study/uncontrolled longitudinal study/case series	Observations are made on participants receiving the same intervention, at a single point before and a single point after the intervention but with no control group

Systematic reviews as a study type were excluded from the review. However, when systematic reviews were identified in our searches, the list of primary studies included in the systematic review were checked for primary studies that were not identified in our database and other source searches. These studies were checked for eligibility against the review inclusion criteria.

Expert opinion articles, editorials, and letters were excluded.

Types of studies: study reports

Database searches did not exclude studies based on language of publication. For studies with a non-English title and abstract, Google translator was used to translate the title and abstract and assess eligibility. If the study was judged ineligible based on the translated title, or title and abstract, it was excluded at the title and abstract screening stage. If eligibility was still uncertain or the study had only a non-English title, the full text of the study was obtained if possible and translated with Google translator. If the full text was obtained and translated and found to be ineligible, the study was excluded at the full text screening stage. If the full text could not be obtained or eligibility remained unclear after translation of the full text, the study was reported a 'Study Awaiting Classification'.

For studies reported only as an abstract (e.g., a conference abstract) but considered potentially relevant, any full text studies authored by one or more of the abstract authors were checked to

determine whether the data presented in the conference abstract was a subset of, or the same population as that reported in the full text. When a conference abstract was reporting a study that had been identified in full text, the abstract was counted as an included report and noted in the PRISMA flowchart. All reports of the same study were considered when extracting data and assessing risk of bias. When no related full text study was identified for a potentially relevant abstract, authors were contacted for a full-text report of the study. This was necessary for one potentially relevant abstract. The full text of the study was received from the investigator and was assessed at the full text screening stage by 2 reviewers (the study was excluded, and this was reported in the Table of excluded studies in Appendix C, with reason for exclusion provided).

A4.2 – Types of participants

Studies in people of any age with any injury, disease, medical condition, or pre-clinical condition were included. This included disease prevention in at-risk healthy populations, broadly defined as those at increased risk of becoming ill or injured based on social, biomedical, or behavioural risk factors. For the purposes of this review, social determinants included factors such as income, education, employment and social support; biomedical factors included a person's age, genetic make-up and health status (such as obesity, high blood pressure, high cholesterol, vitamin deficiency); and behavioural factors included a person's lifestyle choices (e.g. alcohol consumption, diet, exercise, tobacco and other drug use).(18) Studies in populations of healthy participants seeking health improvement (such as general wellbeing, fitness, aesthetic improvements, resilience and cognitive or emotional intelligence) were excluded.

A4.3 – Types of interventions

Studies were included that evaluated an intervention meeting the definition of Rolfing® Structural Integration (SI) and/or Rolf Movement® Integration as stated in the Official Order 2019-20P027 (page 17) regardless of who delivered the intervention:

> *Rolfing is the abbreviated term used to describe Rolfing® Structural Integration (SI) and Rolf Movement® Integration. Named after its founder, Dr. Ida P. Rolf, SI is a form of bodywork that aims to reorganize the connective tissues, called fascia, so that body is more at ease and its structure is balanced in gravity. The aim is to restore postural efficiency and freedom of movement, improve flexibility, resolve discomfort, release tension, alleviate pain and revitalise energy. The hallmark of Rolfing SI is a standardized "recipe" known as the Ten-Series, the goal of which is to systematically balance and optimize both the structure (shape) and function (movement) of the entire body over the course of ten Rolfing sessions.*

> *Rolf Movement® Integration, a somatic sensory-motor approach to movement education, aims to help clients optimize and sustain structural ease through balanced movement behaviour. Originally developed by mandate from Dr. Rolf, who believed that movement education was a valuable adjunct to the hands-on structural work, Rolf Movement® Integration has evolved into both a therapy in its own right, and an inherent feature of the Rolfing Structural Integration process.*

Studies of Structural Integration or Myofascial Structural Intervention were also included, as these techniques were considered synonymous with Rolfing. Studies of individual component techniques (such as myofascial release, active functional technique, and others) delivered in isolation were excluded, unless these interventions were identified as Rolfing/Structural Integration/Myofascial Structural Integration. The technique evaluated is reported in accordance with the primary study.

A4.4 – Types of comparators

Studies with the following comparators were included: placebo, no intervention, sham intervention, wait list, usual care, or another intervention or interventions. Studies where Rolfing was used as an adjunct intervention to another intervention were also included, providing that the specific effect of Rolfing could be determined. For the purposes of the analysis, the comparisons were grouped into the following: control (inactive), placebo/sham (if relevant), or other measures of treatment effect ('active') comparator.

A4.5 – Types of outcome measures

The outcomes reported by studies were not used as a criterion for inclusion or exclusion from the review (at either the title and abstract, or at the full text screening stage). Given the range of conditions for which Rolfing may be evaluated, the outcome measures reported in this review for each condition were determined and prioritised by the NTWC.

For each condition, the NTWC was provided with a list of outcomes from eligible studies, a core outcome set and/or a list of primary and secondary outcomes from a Cochrane Systematic review on the topic, as follows (Table 2):

Table 2: Sources of outcomes for each condition

Condition	Core outcome set	Cochrane Systematic Review	Other
Spastic Cerebral Palsy	Vargus-Adams, J.N., & Martin, L.K. (2009). Measuring what matters in cerebral palsy: a breadth of important domains and outcome measures. Archives of physical medicine and rehabilitation, 90(12), 2089-2095	Hasnat MJ, Rice JE. Intrathecal baclofen for treating spasticity in children with cerebral palsy. Cochrane Database of Systematic Reviews 2015, Issue 11. Art. No.: CD004552. Hoare BJ, Wallen MA, Imms C, Villanueva E, Rawicki HB, Carey L. Botulinum toxin A as an adjunct to treatment in the management of the upper limb in children with spastic cerebral palsy (UPDATE). Cochrane Database of Systematic Reviews 2010, Issue 1. Art. No.: CD003469.	n/a
Low Back Pain	Chiarotto, A., Deyo, R. A., Terwee, et al. (2015). Core outcome domains for clinical trials in non-specific low back pain. European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society, 24(6), 1127–1142.	Walker BF, French SD, Grant W, Green S. Combined chiropractic interventions for low-back pain. Cochrane Database of Systematic Reviews 2010, Issue 4. Art. No.: CD005427.	n/a
Fibromyalgia	Mease, P., Arnold, L. M., Choy, E. H., et al. (2009). Fibromyalgia syndrome module at OMERACT 9: domain construct. The Journal of rheumatology, 36(10), 2318–2329	Theadom A, Cropley M, Smith HE, Feigin VL, McPherson K. Mind and body therapy for fibromyalgia. Cochrane Database of Systematic Reviews 2015, Issue 4. Art. No.: CD001980	n/a
Hamstring tightness	None identified	None identified	List of outcomes reported in the study was provided.

Throughout the outcome prioritisation exercise, the NTWC had no knowledge of study results or details other than those stated above. In determining the critical and important outcomes, the NTWC was guided by GRADE, and focused on the relevance and validity of outcome measures. The

NTWC ranked all outcomes according to the following: ranking 1-3 “of limited importance for making a decision”; 4-6 “important but not critical for making a decision”; 7-9 “critical for making a decision.” Outcomes rated 4 or above were included in the review.

Studies reporting only Patient-Reported Experience Measures (PREMs), such as satisfaction with experience or preferences, were excluded. Safety, quality, or economic outcomes were also excluded.

The process of outcome prioritisation was undertaken for the conditions spastic cerebral palsy, low back pain, fibromyalgia, anxiety, hemiparesis due to stroke and the preclinical condition hamstring tightness. However, further assessment of the single studies evaluating Rolfing for hemiparesis and anxiety found these studies were ineligible for inclusion in the review. Details of these studies are provided in Appendix C. The study of hemiparesis after stroke was excluded because it did not include any results data (and these could not be obtained from the author as attempts to contact the author were unsuccessful) and randomised only four participants. The study of anxiety included an ineligible population – apparently healthy volunteers recruited from universities.

A5 – Data collection

A5.1 – Selection of studies (inclusion decisions)

Two reviewers independently screened the titles and abstracts identified in the database and citation searches and checked studies included in systematic and literature reviews against the inclusion criteria. One reviewer hand-searched the Ida P. Rolf Library of Structural Integration. One reviewer retrieved full-text of eligible articles, and two reviewers then independently screened the full-text articles for inclusion. Disagreements were resolved by discussion, or reference to a third reviewer as required. The selection process was recorded in a PRISMA flow diagram. Full text studies which did not meet the inclusion criteria were tabulated, and reasons for exclusion provided (Appendix C).

As per the protocol, the plan was to assess any evidence provided through the Department’s call for evidence or by NTREAP or NTWC according to the inclusion criteria. However, no evidence was provided.

A6 – Most recent, comprehensive SRs (where relevant)

No recent systematic reviews evaluating the effect of Rolfing were identified by the search strategy used in this review or in a recent search (12 August 2021) using the terms ‘Rolfing’ or ‘Structural Integration’ in the title and abstract and the systematic review filter.

A7 – Refining research question

A7.1 – Population prioritisation (where relevant)

Not applicable for this review.

A7.2 – Outcome prioritization

The outcome prioritisation tables developed by the NTWC for each condition included in the review are presented below. (Table 3)

Table 3: Outcomes prioritised by the NTWC for each condition

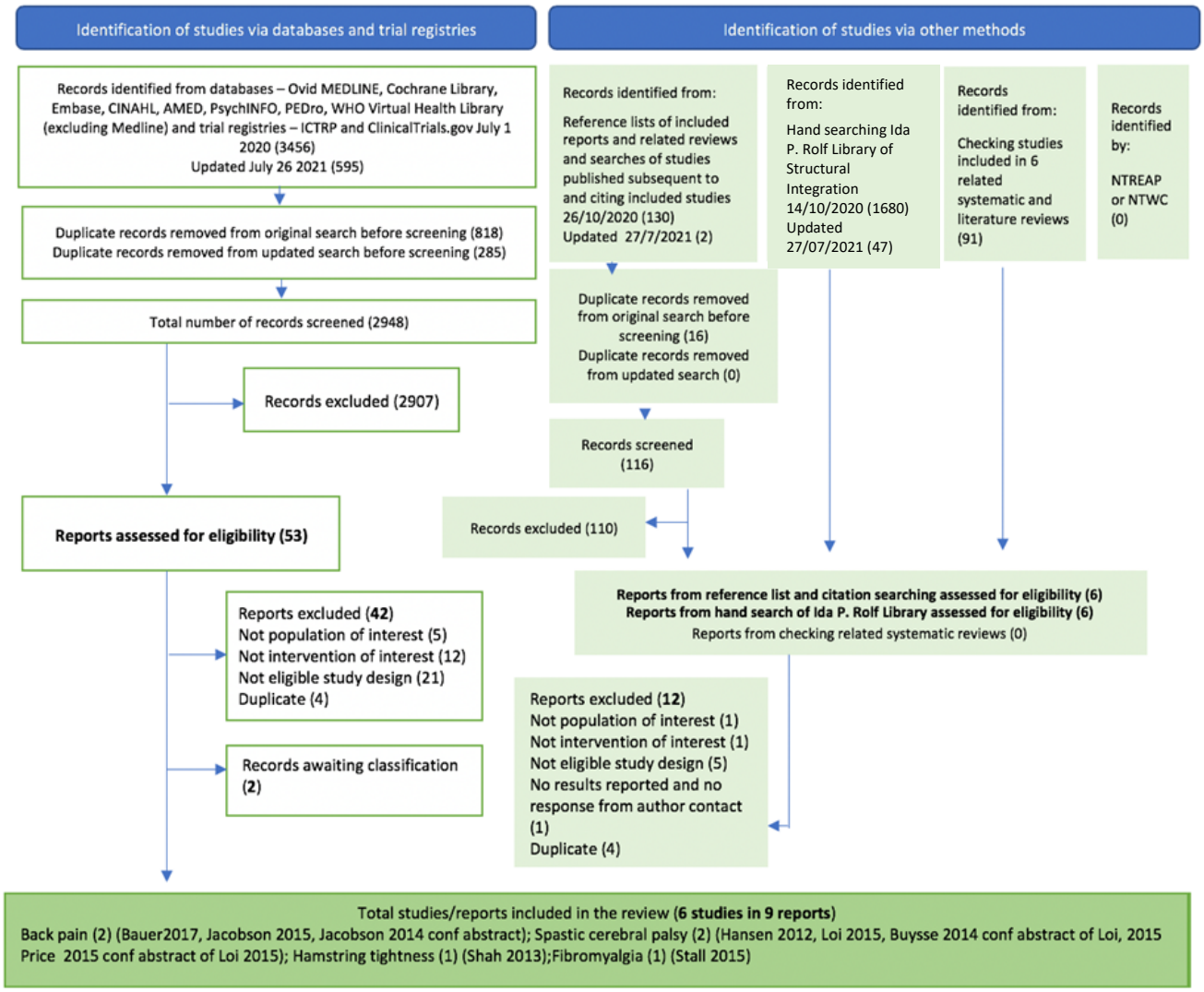
Condition (population)	Outcome domain	NTWC consensus rating of domain
Spastic cerebral palsy	Activities of daily living	8
	Fine motor skills / self-care	7
	Gross motor function	7
	Integration / participation	7
	Physical function / impairment	7
	Quality of life	7
	Self-efficacy / self-perception	4
Condition (population)	**Outcome domain**	**NTWC consensus rating of domain**
Low Back pain/ Non-specific back pain	Pain	9
	Physical functioning / disability	8
	Overall symptom improvement	7
	Quality of life	7
	Work status	6
	Mental health	5
	Social function	5
Condition (population)	**Outcome domain**	**NTWC consensus rating for domain**
Fibromyalgia	Pain	9
	Physical function – global	8
	Fatigue	7
	Quality of life	7
	Tenderness	7
	Sleep	6
	Stiffness	5
Condition (population)	**Outcome domain**	**NTWC consensus rating for domain**
Hamstring tightness	Flexibility	7

A8 – Summary screening results

A8.1 – Summary search results

The PRISMA flowchart in Figure 1 summarises the screening process.

Figure 1. Prisma Flow chart



The conditions for which Rolfing has been evaluated and the number of RCTs and NRSIs evaluating Rolfing for these conditions are listed in Table 4, below. The included studies were all RCTs evaluating Rolfing in populations with spastic cerebral palsy, low back pain, fibromyalgia and hamstring tightness.

Table 4. Studies evaluating Rolfing by condition and ICD-11 disease classification

ICD-11^	POPULATION	# RCTs	# NRSI
VIII	**Diseases of the nervous system**		
	Spastic cerebral palsy	2	0
XV	**Diseases of the musculoskeletal system or connective tissue**		
	Low back pain	2	0
	Fibromyalgia	1	0

XXI	**Symptoms, signs or clinical findings, not elsewhere classified**		
	Hamstring tightness	1	0

^International Statistical Classification of Diseases and Related Health Problems 11th Revision (ICD-11)-WHO Version (2021)

A8.2 – Summary results for evidence provided through department

Not applicable for this review.

Appendix B – Methods of data appraisal, extraction, analysis, and reporting for the included studies

B1 – Risk of Bias process

B1.1 – Tool used to assess Risk of Bias

Risk of bias in randomised and quasi-randomised controlled trials were assessed with the Revised Cochrane risk-of-bias tool for individually randomised trials parallel-group trials (RoB 2). For each result, the effect of assignment to intervention (the 'intention to treat' effect) was assessed. Biases arising from the following domains were assessed: randomisation process, deviation from intended intervention, missing outcome data, measurement of the outcome, selection of the reported result and overall bias; they were judged as being at: 1) low risk of bias, 2) some concerns, 3) high risk of bias.(19) Cross-over studies were assessed using the RoB 2 tool for crossover trials, unless only the first crossover period data was analysed, in which case the Revised Cochrane risk-of-bias tool for randomised parallel-group trials was used (as per the preliminary tool version of guidance for crossover trials).

The protocol specified that risk of bias in non-randomised studies of interventions would be assessed with the Risk-of-Bias In Non-randomised Studies of Interventions (ROBINS-I) tool. This tool views each study as an attempt to emulate a hypothetical randomised trial and assesses bias in seven domains: confounding, selection bias, bias in measurement classification of interventions, bias due to deviations from intended interventions, bias due to missing data, bias in measurement of outcomes, and bias in selection of the reported result.(20) However, no non-randomised studies of interventions met eligibility for inclusion in this review.

B1.2 – Assessing Risk of Bias

Two reviewers independently assessed risk of bias for each study result reported in the included studies using the RoB 2 tool. Risk of bias judgments were compared by the two reviewers to identify discrepancies. Any discrepancies were reconciled by discussion between the two reviewers, or by referring to a third reviewer

B2 – Data extraction processes

B2.1 – Data items

Two reviewers independently extracted data from reports of included studies using piloted data extraction forms. During piloting, the two reviewers jointly extracted the data from two studies into the extraction forms, to ensure consistent understanding and suitability of the data extraction forms. The remainder of the studies were extracted by two reviewers independently. The data extracted was then compared by the extracting authors to identify discrepancies in extractions, and discrepancies were reconciled by discussion, or by referring to a third reviewer as required.

Information on study design and location and participant characteristics including health status (healthy at risk, disease, or condition), age, gender breakdown and number of participants was extracted. Descriptions of the key characteristics of the interventions were also extracted and reported using the Template for Intervention Description and Replication (TIDieR) checklist.(21) The NTWC decision on outcome domains and their prioritisation was used to inform data extraction of study outcomes (see Table 3, above). Data for the outcome domains considered critical for decision making (rated 7 to 9), and the outcome domains considered important but not critical (rated 4 to 6) was extracted. For each study, the most detailed numerical outcome data was extracted. If the study reported outcomes at multiple time points, the data for all time points was extracted. Where outcomes were reported in text only, the relevant text was extracted as it appeared in the study.

B2.2 – Requests for data

If key information was missing from reports of the included studies, attempts were made to contact the corresponding authors requesting the missing data.

B2.3 – Transformations of data

Numeric data was extracted from figures in the original studies using Web Plot Digitizer (version 2.6.9, 2020).

B2.4 – Missing outcome data

If numerical outcome data were missing (e.g. standard deviations or difference between intervention groups) from reports of the included studies, where possible, it was calculated from available data according to the methods described in the Cochrane Handbook for Systematic Reviews of Interventions.(16) Assumptions applied for missing data were clearly stated (e.g. where number of participants in each study group were not reported, equal numbers were assumed in order to calculate the difference between study groups and this was noted clearly in the tables and text for this result). Where outcome data was calculated (e.g. mean difference between groups), this was clearly indicated in the relevant tables in Appendix F and the method of calculation stated. Where the information could not be calculated, the data was extracted as per original studies, and its incompleteness was noted.

B3 – Data Analysis

For each included study for each condition, the results of outcomes with a NTWC consensus rating of 4 or above (Table 3, above) are presented. All the outcome data presented in the study (as it appears in the study report) relating to these outcomes is presented in Appendix F. When the study does not report numeric data for an outcome but describes the results in text, these results are presented as they are stated by the study. When the study does not report data for an outcome (e.g. the methods indicate an outcome was measured but no results are reported) or does not measure an outcome (there is no indication in the methods that an outcome of interest to the NTWC was measured), this is clearly stated in Appendix F for each condition and in the Summary of Findings tables in the main report. For studies evaluating 3 or more arms, the protocol specified presenting the results of all study arms when the specific effects of Rolfing could be determined. For the one multi arm parallel study included in this review, results for the combined Rolfing and acupuncture arm are not presented as it was considered this arm was evaluating the additive or combined effects of the two interventions rather than the effects of Rolfing specifically.

B3.1 - Measures of treatment effect

B3.1.1 - Effect measures

Odds ratios were to be used for dichotomous outcomes where the results are reported as the number of individuals with an event. Count data (e.g. the number of events in each group, such as the number of illness episodes) was analysed using methods for dichotomous, continuous, time-to-event, or as rate data – as appropriate (Cochrane Handbook Section 9.4.8). For continuous outcomes (e.g. severity of illness, gross motor function measures, etc.), mean difference or standardized mean difference were planned to be used as appropriate (Cochrane Handbook Section 9.2.3). As all outcomes reported by the studies included in this review were continuous, and as data could not be quantitively synthesized (see B4.3.1), study groups are compared using a mean difference where this was provided or could be calculated.

B3.1.2 - Clinical relevance

To interpret intervention effects, minimally important differences were used as stated in the protocol. For outcomes with data on the difference between groups, the effect estimates were interpreted in relation to a threshold for an important difference as follows:

For gross motor function (assessed with Gross Motor Function Measure – 66), the minimally important difference is 1.7 (medium effect size) and 2.7 (large effect size) for Gross Motor Function Classification System (GMFCS) I, 1.0 (medium effect size) and 1.5 (large effect size) for GMFCS II and 0.7 (medium effect size) and 1.2 (large effect size) for GMFCS level III.(22)

For pain (assessed with VAS 1-10cm) a 1-point or more reduction in pain was considered a minimally important difference as suggested by the Outcome Measures in Rheumatology (OMERACT) guidelines.(23)

For quality of life (assessed with Fibromyalgia Impact Questionnaire; 0-100 with 0 representing best quality of life and 100 worst quality of life) a change of 8.1 (95%CI 7.6 to 8.5) was considered a minimally important difference.(24)

For hamstring flexibility measured by the sit and reach test and popliteal angle, no data on the smallest change in flexibility that a patient would perceive as clinically meaningful could be located.

B3.2 - Unit-of-analysis issues

The individual was used as the unit of analysis, where possible. However, where data on the number of individuals with outcomes of interest was not available, the information as it is presented (e.g., the number of events in each group) was extracted. For crossover studies, when the method of cross-over analysis used by the study were not reported (e.g. if it is not clear which baseline measure was used to determine the change score in the second cross over phase) we calculated effect estimates from the first cross over period only.

B3.3 - Risk of reporting bias across studies

Funnel plots to assess the potential for reporting biases were planned when a meta-analysis of more than 10 trials was performed. Due to the small number of studies included in this review (six studies across four conditions) and inability to conduct meta-analyses, the potential for reporting bias across studies was not assessed using this method.

The trial register ClinicalTrials.gov was used to check for trial results not reported in the publication. Each included study (and related study report) was checked for missing results data by reviewing he report/s of each study for trial registration ID and by conducting author and title term searches of ClinicalTrials.gov. No additional results (to those reported in the publication) were found. The table summarizing the clinical registry check is provided below (Table 5).

Table 5: Results of the clinical trial register check

Study ID	Trial registration number (if available) with hyperlink	Additional results available online	Differences in outcome reporting
Cerebral Palsy			
Loi 2015, Buysse, 2014, Price 2016	NCT01815814	No	No
Hansen 2012	No	NA	NA
Low Back Pain			
Baur, 2017	No	NA	NA
Jacobson 2014, Jacobson 2015	NCT01322399	No	No
Fibromyalgia			
Stall 2015	No	NA	NA
Hamstring tightness			
Shah 2013	No	NA	NA

NA= not applicable

B3.4 - Data synthesis

B3.4.1 - Quantitative synthesis

Meta-analysis of randomised trials was planned, when two or more studies for the same condition reported data for the same outcome and were considered sufficiently homogeneous with respect to participants and interventions. As there were either only single studies for the conditions included in the review, or 2 studies for a condition with each study evaluating different comparators (control comparison or an active comparator), meta-analysis could not be performed, and other methods of quantitatively synthesizing studies could not be used.

B3.4.2 - Non-quantitative synthesis

The results of each included study for each condition were tabulated and described in text.

B3.4.3 - Subgroup analyses and investigations of heterogeneity

The following subgroup analyses were planned if sufficient data were available:

1) Effectiveness of Rolfing in participants who are “at risk” healthy vs in those diagnosed with a condition/illness
2) Type of Rolfing intervention (e.g., Rolfing vs Structural Integration vs Myofascial structural Integration)
3) Treatment provider (e.g., Certified Rolfing/Structural Integration practitioner vs non-certified)
4) Age of participants (<18 years, 18-65 years, > 65 years)

Due to the small number of studies included in the review for each condition, and the inability to perform meta-analyses, subgroup analyses were not conducted.

B3.4.4 - Addressing risk of bias

Sensitivity analyses were planned to determine the size and direction of effect when excluding studies with a risk of bias domain rated as high risk when meta-analysis was conducted. As no meta-analyses were conducted in this review, sensitivity analyses were not possible.

B3.4.5 - Sensitivity analysis

As no meta-analyses were conducted in this review, sensitivity analysis was not possible.

B4 – Evidence statements

B4.1 – Summary of findings and certainty of evidence

The GRADE approach was used to assess the certainty of the body of evidence for each outcome. Two reviewers independently applied the GRADE criteria and reached consensus judgments through discussion. Using the GRADE approach, certainty for each outcome was rated as very low (the true effect is probably markedly different from the estimated effect), low (the true effect might be markedly different from the estimated effect), moderate (the authors believe that the true effect is probably close to the estimated effect) or high (the authors have a lot of confidence that the true effect is similar to the estimated effect).(25)

Certainty of the evidence for each outcome was determined by considering eight GRADE factors; five of which may lead to rating down certainty (risk of bias, indirectness, inconsistency, imprecision, and publication bias), and three which may result in rating up certainty (large effect, dose response, all plausible confounding and bias). The latter are generally only used for observational studies. The basis for judgments of risk of bias, indirectness, inconsistency, imprecision and publication bias are outlined below.

Risk of bias – risk of bias assessments for each result were translated to judgments about study limitations for each outcome included in the summary of findings tables using guidance provided in the Cochrane Handbook (Table 14.2.a).

Inconsistency – assessment of inconsistency requires exploration of inconsistency in study estimates of effect. As there were no included studies addressing the same population and comparison, inconsistency could not be assessed.

Indirectness – indirectness of the evidence was assessed by considering the relationship of the included study population, intervention, comparator or outcome with the broader question of interest.(26)

Imprecision – all outcomes for which results data were available were continuous outcomes and as such the assessment of imprecision involved consideration of sample size and width of 95% confidence intervals (GRADE handbook and Cochrane Handbook). If there was no information on which to judge precision and the number of participants was small precision was rated down by two. The thresholds specified in Section B3.1.2 - Clinical relevance, and the upper and lower 95% confidence intervals, were used to determine whether the imprecision is clinically meaningful and to inform decisions to downgrade for imprecision.

Publication bias – Methods for assessing the possibility of non-reporting bias by exploring patterns of results using funnel plots could not be implemented because synthesis of results was not possible. The trial result registry ClinicalTrials.gov was checked for results not reported in the study publication, however no additional results were found. The presence of industry sponsorship or study investigator conflict of interest) when there are a small number of studies was considered criteria for rating down for publication bias as per “GRADE Guidelines: 5.”(27)

Reasons for downgrading the evidence were classified as ‘serious’ (downgrading the certainty rating by one level), or ‘very serious’ (downgrading the certainty by two levels); when the reason is not serious enough to warrant downgrading it was classified as ‘no limitation’. Certainty of the evidence was to be rated up one level when a large magnitude of effect exists, when there was a dose-response gradient, and when all plausible confounders or other biases would reduce a demonstrated effect or suggest a spurious effect when no effect was observed, as per guidance outlined in GRADE Guideline 9.(28) However, rating up was not applicable in the current studies. The baseline certainty rating for the included studies (all randomised controlled trials) was high.

For each comparator within each clinical condition, GRADEpro GDT (www.gradepro.org) was used to create summary of findings (SOF) tables to present information about the body of evidence, key numerical results and a summary judgment about the certainty of the underlying evidence for each outcome. Each SOF table included all outcome domains that were rated 4 or higher (critical for making a decision or important but not critical for making a decision) by the NTWC, irrespective of whether these outcomes were measured or reported in the included studies. For the clinical conditions cerebral palsy and low back pain and the pre-condition hamstring tightness, up to 7 outcomes (domains rated as 4 or higher by the NTWC) were presented in the SOF table. For the condition fibromyalgia, the NTWC rated 7 outcome domains as 4 or above. For the outcomes pain (rated 9 by the NTWC) and quality of life (rated 7 by the NTWC) results are reported at 2 time points (immediately post treatment and at 3 months follow-up). Both time points are presented on separate lines of the SOF table, hence the SOF table for fibromyalgia includes 9 lines (for 7 outcomes). For the condition low back pain, one study reported mental health outcomes measured with the SF36 Mental Health Composite score and the SF36 Mental Health subscale. As per NTWC instructions only results for the measurement with the highest ranking was reported. Thus, SF36 Mental Component (NTWC measurement priority 1 for the outcome domain mental health) was reported for this outcome domain. Detailed explanations to support judgments (e.g. the GRADE assessment of certainty) are annotated as footnotes in the SOF table using guidance from Cochrane (Cochrane Handbook Section 14.1.6.10).(16)

For dichotomous outcomes, a relative measure of effect and a measure of absolute risk were to be provided in the SOF table. For continuous outcomes, post intervention or change scores after adjusting for baseline value (using analysis of covariance) were presented if available. If not available, difference in post intervention scores were presented. Difference in change scores were presented in SOF tables only if the former data were not available. Minimum clinically important differences for outcome measures where data on difference between study groups was available are included in the SOF tables.

B4.2 – Development of evidence statements

Evidence statements for each outcome within each comparator and condition were written based on guidance for communicating findings of systematic reviews of interventions and using wording templates from GRADE guidance.(29) All outcomes reported in this review were rated as very low certainty evidence. As per guidance from NHMRC, very low certainty evidence was not interpreted and the statement “The evidence is very uncertain about the effect of X on outcome” used. When the comparator for the outcome was an alternative intervention, the comparator is included in the statement.

Appendix C – Citation details of studies assessed at full text but not included

C1. Excluded studies (overview)

The reasons for the exclusion of references assessed in full text (n=56) are summarized in Table 6.

Table 6: Summary of the reasons for exclusion of references assessed in full text

Reasons for exclusions:

- Duplicate (8)
- Not eligible study design (25)
- Not a population of interest. The study populations were healthy individuals not considered to be at risk of illness or injury based on social, biomedical or behavioural risk factors (6)
- Not an intervention of interest. The interventions were not Rolfing/Structural Integration/Myofascial Structural Integration or were individual techniques delivered in isolation (13)
- No results reported and no response from author contact (1)
- Ongoing studies (0)
- Abstract/posters without accompanying full-text record (0)
- Records awaiting classification. Non-English titles and abstract or full text are not available (2)

References of reports evaluating Rolfing for conditions that had outcomes prioritised but were excluded from the review are provided in Table 7, below.

Table 7: References and details of reports evaluating Rolfing for conditions that had outcomes priorities but subsequently found ineligible on assessment of full text and excluded from the review

Study	Study design	ICD 11 Category	CONDITION (population)	N	Interven -tion	Sessions	Comparator (inactive)	Comparator (active)	Note
Weinberg 1979 (30)	RCT	06 Mental and behavioural disorders	Anxiety (Healthy students from universities)	48	Rolfing	5 wks, 2 x 60 min sessions per wk	Control (no intervention)	--	Healthy population
Cyrillo 2001 (31)	RCT	6B60 Dissociative neurological symptom disorder	Hemiparesis 6 months after stroke	4	Rolfing	10 sessions	--	kinesiotherapy	Non-English article. Full text obtained and translated*. No results reported and no response to author contact. *using Google Translate

C1 – Citation details of studies from search results excluded

Full references for the reports assessed in full text but excluded from the review (n=53), together with a reason for exclusion, are provided in Table 8, below.

Table 8. References assessed in full text and excluded from the review (n=53)

No	Reference	Source	Reason for exclusion
1	Actrn (2018). "Impact of ten session of structural integration on bioelectrical activity of pelvic floor muscles and their synergists, static body balance, body composition and foot arch parameters in women with and without pelvic floor dysfunction." http://www.who.int/trialsearch/Trial2.aspx?TrialID=ACTRN12618000884202.	Database searches	Duplicate – registration of Kasper-Jedrzejewska 2020 study below
2	Isrctn (2019). "The effect of Rolf Method of Structural Integration therapy on physical and mental characteristics." http://www.who.int/trialsearch/Trial2.aspx?TrialID=ISRCTN46707309.	Database searches	Duplicate – registration of Jedrzejewski 2020 study below
3	Jacobson EE, Meleger AL, Bonato P, Wayne PM, Langevin HM, Kaptchuk TJ, et al. Structural integration as an adjunct to outpatient rehabilitation for chronic nonspecific low back pain: a randomized pilot clinical trial. Evidence-Based Complementary and Alternative Medicine. 2015;2015:813418.	Database searches	Duplicate of an already included study
4	Meleger A, Bonato P, Kaptchuk T, Davis R. Structural Integration for Chronic Low Back Pain: a Randomized, Open Label Pilot Clinical Trial. Journal of alternative and complementary medicine (New York, NY). 2014;20(5):A17-8.	Database searches	Duplicate of the Jacobson conference abstract already included (error in the author list, Jacobson EE should be listed as first author)
5	LYON, Todd; PORGES, Stephen W.; COTTINGHAM, John T. Effects of Soft Tissue Mobilization (Rolfing Pelvic Lift) on Parasympathetic in Two Age Groups; https://pedroprado.com.br/articles/effects-of-soft-tissue-mobilization-rolfing-pelvic-lift-on-parasympathetic-in-two-age-groups/?lang=en	Ida Rolf Library	Duplicate of Cottingham et al, 1998 below
6	PRICE, Karen S.; HANSEN, Alexis; FELDMAN, Heidi; Myofascial Structural Integration A Promising Complementary Therapy for Young Children With Spastic Cerebral Palsy. https://pedroprado.com.br/articles/myofascial-structural-integration/?lang=en	Ida Rolf Library	Duplicate of Hansen et al, 2014 below
7	RICHMOND, Kent; PORGES, Stephen W.; COTTINGHAM, John T.; Shifts in Pelvic Inclination Angle and Parasympathetic Tone Produced by Rolfing Soft Tissue Manipulation; https://pedroprado.com.br/articles/shifts-in-pelvic-inclination-angle-and-p9arasympathetic-tone-produced-by-rolfing-soft-tissue-manipulation/?lang=en	Ida Rolf Library	Duplicate of Cottingham et al, 1998 below
8	W10EINBERG, Robert; HUNT, Valerie; Effects of Structural Integration on State-Trait Anxi11ety. https://pedroprado.com.br/articles/effects-of-structural-integration-on-state-trait-anxiety/?lang=en	Ida Rolf Library	Duplicate of Weinberg 1979 above
9	Barnes, J. F. (2020). "STRUCTURAL MYOFASCIAL RELEASE." Massage Today **20**(1): 16-17.	Database searches	Not eligible study design
10	Bernau-Eigen M. Rolfing: a somatic approach to the integration of human structures. Nurse Practitioner Forum. 1998;9(4):235-42.	Database searches	Not eligible study design
11	Deutsch JE, Derr LL, Judd P, Reuven B. Treatment of chronic pain through the use of structural integration (Rolfing). Orthopaedic Physical Therapy Clinics of North America. 2000;9(3):411-27.	Database searches	Not eligible study design
12	Dur, M. Wellness Through Structural Integration. *Massage Therapy Journal*. Spring2021 2021;60(1):30-35. (excluded wrong design)	Database searches	Not eligible study design
13	Hansen AB, Price KS, Loi EC, Buysse CA, Jaramillo TM, Pico EL, et al. Gait changes following myofascial structural integration (Rolfing) observed in 2 children with cerebral palsy. Journal of Evidence-Based Complementary & Alternative Medicine. 2014;19(4):297-300.	Database searches	Not eligible study design
14	James H, Castaneda L, Miller ME, Findley T. Rolfing structural integration treatment of cervical spine dysfunction. Journal of Bodywork & Movement Therapies. 2009;13(3):229-38.	Database searches	Not eligible study design
15	Jones TA. Rolfing. Physical Medicine & Rehabilitation Clinics of North America. 2004;15(4):799-809, vi.	Database searches	Not eligible study design
16	Kotzsch RE. Restructure the body with Rolfing: deep massage that realigns the human form. East West Nat Health. 1992;22(6):35-8.	Database searches	Not eligible study design
17	Larson D. The role of connective tissue as the physical medium for the conduction of healing energy in acupuncture and Rolfing. American Journal of Acupuncture. 1990;18(3):251-66.	Database searches	Not eligible study design
18	Myers TW. Structural integration – developments in Ida Rolf's 'Recipe' – I. Journal of Bodywork and Movement Therapies. 2004;8(2):131-42.	Database searches	Not eligible study design
19	Myers TW. Structural integration – developments in Ida Rolf's 'recipe' – part 3. An alternative form. Journal of Bodywork & Movement Therapies. 2004;8(4):249-64.	Database searches	Not eligible study design
21	Perry J, Jones MH, Thomas L. Functional evaluation of Rolfing in cerebral palsy. Developmental Medicine & Child Neurology. 1981;23(6):717-29.	Database searches	Not eligible study design

21	Pratt TC. Psychological effects of structural integration. Psychological Reports. 1974;35(2):856.	Database searches	Not eligible study design
22	Rolf IP. Structural integration. A contribution to the understanding of stress. Confinia Psychiatrica. 1973;16(2):69-79.	Database searches	Not eligible study design
23	Saller R, Kreck C. Rolfing-Methode (strukturelle Integration). Internistische Praxis. 1994;34(4):808-13.	Database searches	Not eligible study design
24	Stall P, Teixeira MJ. Fibromyalgia syndrome treated with the structural integration Rolfing® method. Rev dor. 2014;15(4):248-52.	Database searches	Not eligible study design
25	Tahata, H. and Y. Shimotsuura (2021). "What is the significance to enhance adaptability of human structure to gravity through Rolfing process in the diagnosis of Bi-digital O-Ring test?" Acupuncture and Electro-Therapeutics Research **46**(1): 94-95.	Database searches	Not eligible study design
26	Tindall S. The Rolfing question. Journal of the Australian Association of Massage Therapists. 2012;10(2):16-8.	Database searches	Not eligible study design
27	Walter AA, Van Puymbroeck M, Townsend J, Linder SM, Schmid AA. A systematic review of mind and body complementary health practices for informal caregivers. American Journal of Recreation Therapy. 2017;16(3):29-35.	Database searches	Not eligible study design (A systematic review: whilst Rolfing was one of the therapies of interest in the review, no Rolfing studies included in the review (0 studies) met the inclusion criteria for this review.)
28	Atalla N, Chaudhry H, Findley T. Quantifying Effects of Non-Invasive Interventions to Reduce Low Back Dysfunction. Journal of Bodywork and Movement Therapies. 2012;16(2):149.	Reference list check or search for studies published subsequent to and citing and included study	Not eligible study design
29	Brekke AF, Overgaard S, Hróbjartsson A, Holsgaard-Larsen A. Non-surgical interventions for excessive anterior pelvic tilt in symptomatic and non-symptomatic adults: A systematic review. EFFORT Open Reviews. 2020;5(1):37-45.	Reference list check or search for studies published subsequent to and citing and included study	Not eligible study design (A systematic review: Rolfing was one of the therapies of interest, and 1 Rolfing study was included in the review (Cottingham 1998) however, that study does not meet the inclusion criteria for this review (not population of interest))
30	Deutsch JE. The Ida Rolf Method of Structural Integration. Complementary Therapies for Physical Therapy2008. P. 264-72.	Reference list check or search for studies published subsequent to and citing and included study	Not eligible study design (Discussion/review; none of the discussed Rolfing studies are includable in the present review)
31	James H, Brown J, Burke-Doe A, Miller ME. Support of RSI: Rolfing structural integration for reducing pain and limitations of motion in the neck and shoulder. Neck Pain: Causes, Diagnosis and Management2011. P. 33-43.	Reference list check or search for studies published subsequent to and citing and included study	Not eligible study design

32	Van Tulder MW, Koes B, Malmivaara A. Outcome of non-invasive treatment modalities on back pain: An evidence-based review. European Spine Journal. 2006;15(SUPPL. 1):S64-S81.	Reference list check or search for studies published subsequent to and citing and included study	Not eligible study design (A review: none of the included studies are of Rolfing)
33	Zarzycka M, Rozek K, Zarzycki M. Alternative methods of conservative treatment of idiopathic scoliosis. Ortop. 2009;11(5):396-412.	Database searches	Not eligible study design (A systematic review: whilst Rolfing was one of the therapies of interest, no Rolfing studies (0 studies) met the inclusion criteria for this review.)
34	Alber-Klein C, Wagner W. Rolfing – ein manuelles Verfahren zur Strukturveranderung des menschlichen Korpers. Erfahrungsheilkunde. 1988;37(11):696-9.	Database searches	Not eligible study design. A discussion piece outlining the principles and practice of Rolfing
35	Cottingham JT, Porges SW, Lyon T. Effects of soft tissue mobilization (Rolfing pelvic lift) on parasympathetic tone in two age groups. Physical Therapy. 1988;68(3):352-6.	Database searches	Not population of interest. Includes healthy participants who are not considered to be at risk of becoming ill or injured based on social, biomedical or behavioural risk factors
36	Cottingham JT, Porges SW, Richmond K. Shifts in pelvic inclination angle and parasympathetic tone produced by Rolfing soft tissue manipulation. Physical Therapy. 1988;68(9):1364-70.	Database searches	Not population of interest. Includes healthy participants who are not considered to be at risk of becoming ill or injured based on social, biomedical or behavioural risk factors
37	Jędrzejewski, G., Kasper-Jędrzejewska, M., Dolibog, P., Szyguła, R., Schleip, R., & Halski, T. (2020). The Rolf Method of Structural Integration on Fascial Tissue Stiffness, Elasticity, and Superficial Blood Perfusion in Healthy Individuals: The Prospective, Interventional Study. *Frontiers in physiology*, *11*, 1062. https://doi.org/10.3389/fphys.2020.01062	Database searches	Not population of interest. Includes healthy participants who are not considered to be at risk of becoming ill or injured based on social, biomedical or behavioural risk factors
38	Kasper-Jędrzejewska, M., Jędrzejewski, G., Ptaszkowska, L., Ptaszkowski, K., Schleip, R., & Halski, T. (2020). The Rolf Method of Structural Integration and Pelvic Floor Muscle Facilitation: Preliminary Results of a Randomized, Interventional Study. *Journal of clinical medicine*, *9*(12), 3981. https://doi.org/10.3390/jcm9123981	Database searches	Not population of interest. Included healthy women who are not considered to be a risk of becoming ill or injured based on social, biomedical or behavioural factors
39	Weinberg RS, Hunt VV. Effects of structural integration on state-trait anxiety. Journal of Clinical Psychology. 1979;35(2):319-22.	Database searches	Not population of interest. Includes healthy participants who are not considered to be at risk of becoming ill or injured based on

			social, biomedical or behavioural risk factors
40	Brillia Lorrie, Sarah Viera, Russell Stolzoff, David Suprak, Maximillian Antush, and Jun San Juan; Structural Integration 10-Series Effects on Balance and Postural Alignment in Soccer Players; https://pedroprado.com.br/articles/rolfing-si-and-sports/?lang=en	Ida Rolf Library	Not population of interest. Includes healthy recreational players who are not considered to be at risk of injury
41	Bajelis D. Hellerwork: the ultimate in myofascial release. Int J Alternat Complement Med. 1994;12(1):26-30.	Database searches	Not intervention of interest. The intervention was myofascial release. This is considered an individual component technique delivered in isolation
42	Barnes MF, Gronlund RT, Little MF, Personitus WJ. Efficacy study of the effect of a myofascial release treatment technique on obtaining pelvic symmetry. Journal of Bodywork and Movement Therapies. 1997;1(5):289-96.	Database searches	Not intervention of interest. The intervention was myofascial release. This is considered an individual component technique delivered in isolation
43	Castro-Sanchez AM, Mataran-Penarrocha GA, Arroyo-Morales M, Saavedra-Hernandez M, Fernandez-Sola C, Moreno-Lorenzo C. Effects of myofascial release techniques on pain, physical function, and postural stability in patients with fibromyalgia: a randomized controlled trial [with consumer summary]. Clinical Rehabilitation 2011 Sep;25(9):800-813. 2011.	Database searches	Not intervention of interest The intervention was massage-myofascial release therapy. This is considered an individual component technique delivered in isolation
44	Chang CH, Chen CL, Yeh KK, Kuo KN. Association of age in motor function outcomes after multilevel myofascial release in children with cerebral palsy. *Biomed J*. Dec 2020;43(6):469-475. Doi:10.1016/j.bj.2019.10.003	Database searches	Not intervention of interest. The intervention was myofascial release. This is considered an individual component technique delivered in isolation
45	Harper B, Steinbeck L, Aron A. Fascial manipulation vs. standard physical therapy practice for low back pain diagnoses: a pragmatic study. Journal of bodywork and movement therapies. 2018;23(1):115-21.	Database searches	Not intervention of interest. The intervention is fascial manipulation. This is considered an individual component technique delivered in isolation
46	Harper B, Steinbeck L, Aron A. The effect of adding Fascial Manipulation® to the physical therapy plan of care for low back pain patients. Journal of Bodywork & Movement Therapies. 2016;20(1):148-9.	Database searches	Not intervention of interest The intervention is fascial manipulation. This is considered an individual component technique delivered in isolation
47	Joshi DG, Balthillaya G, Prabhu A. Effect of remote myofascial release on hamstring flexibility in asymptomatic individuals – A randomized clinical trial. Journal of Bodywork & Movement Therapies. 2018;22(3):832-7.	Database searches	Not intervention of interest. The intervention was myofascial release. This is considered an individual component technique delivered in isolation
48	Lukasik E, Targosinski P, Szymanski M, Letkiewicz-Ryl O, Styczen P, Wychowanski M. Comparing the effectiveness of myofascial techniques with massage in persons with	Database searches	Not intervention of interest. The

	upper crossed syndrome (preliminary report). Advances in Rehabilitation. 2017;31(2):53-67.		intervention was myofascial techniques. This is considered an individual component technique delivered in isolation
49	Paulo LR, Lacerda ACR, Martins FLM, et al. Can a Single Trial of a Thoracolumbar Myofascial Release Technique Reduce Pain and Disability in Chronic Low Back Pain? A Randomized Balanced Crossover Study. *Journal of Clinical Medicine*. May-07 10(9):07.	Database searches	Not intervention of interest. The intervention was myofascial release technique. This is considered an individual component technique delivered in isolation
50	Yuan SLK, Matsutani LA, Assumpção A, Marques AP. Efeito da massoterapia nos sintomas e qualidade de vida de fibromiálgicos: relato de casos. Ter man. 2010;38(8):349-53.	Database searches	Not intervention of interest. The intervention was massage therapy. This was determined by translation of the title and abstract
51	Zink K, Chini B, Cowens J, Kremer L, Li L. Improving Clinical Outcomes and Quality of Life with Massage Therapy in Youth and Young Adults with Cystic Fibrosis: a Pilot Study. International Journal of Therapeutic Massage & Bodywork. 2019;12(1):4-15.	Database searches	Not intervention of interest. The intervention was massage therapy
52	Zink KA, Bogenschutz L, Chini B, Cowens J, Lin L. The effects of massage therapy on quality of life in youth and young adults with cystic fibrosis: a pilot study. Pediatric pulmonology. 2015;50:435.	Database searches	Not intervention of interest. The intervention was massage therapy
53	Carnes D, Mars TS, Mullinger B, Froud R, Underwood M. Adverse events and manual therapy: A systematic review. Manual Therapy. 2010;15(4):355-63.	Reference list check or search for studies published subsequent to and citing and included study	Not intervention of interest (A systematic review: all of its included studies are of chiropractic (wrong intervention))

C2 – Citation details of studies from provided results excluded

No additional records were provided by the Natural Therapies Review Expert Advisory Panel or by the Natural Therapies Working Committee.

C3 – Citation details of studies from non-priority populations (if relevant)

Not applicable to the present review.

C4 – Citation details of Studies awaiting Classification

Full references for the reports awaiting classification (n=3) are provided in Table 9, below.

Table 9. Full references for the reports awaiting classification (n=2)

No	Reference	Source	Reason for exclusion
1	Froment Y. [Therapeutic renewal. Rolfing or structural integration]. Krankenpflege – Soins Infirmiers. 1984;77(6):68-9.	Database searches	Record awaiting classification. No abstract is available, and the full text report of the study cannot be obtained. https://www.sbk.ch/publikationen/zeitschrift-krankenpflege
2	Sakuraba MA, Prado POB, Fumis RRL. Integração estrutural – Rolfing® no tratamento da limitação de ombro após cirurgia de 23escri de mama. RBM rev bras med. 2013;70(supl.3).	Database searches	Record awaiting classification. No abstract is available and the full text report of the study cannot be obtained. The translation of the title is Rolfing in the treatment of shoulder limitation after breast cancer surgery http://bases.bireme.br/iah/online/P/llxp_disclaimer.htm https://pesquisa.bvsalud.org/portal/resource/pt/lil-740540
3	CYRILLO, Fabio N.; TORRIANI, Camila; SERRANO, Rafael; COSTA, Maria da Conceição R.G. da; Efeitos do Método Rolfing e da Cinesioterapia no Tratamento de Pacientes Hemiparéticos por Acidente Vascular Encefálico; https://pedroprado.com.br/articles/efeitos-do-metodo-rolfing-e-da-cinesioterapia-no-tratamento-de-pacientes-hemipareticos-por-acidente-vascular-encefalico/?lang=en	Ida Rolf Library	No results reported, and no response from author contact

C5 – Citation details of Ongoing studies

No ongoing studies were identified (n=0).

Appendix D – Details of Included studies

D1 – Details of Included studies (overview)

6 studies (reported in 9 reports) met the inclusion criteria.(7-12, 14, 15, 32) All were randomised controlled trials (RCT). Assessed interventions were variously described, as: Structural Intervention (3 RCTs), Myofascial Structural Intervention (1 RCT), Rolfing (1 RCT), and Rolfing Structural Integration (1 RCT) (collectively referred to as 'Rolfing' hereafter). Comparators included: fascial fitness (1 RCT), outpatient rehabilitation (1 RCT), interactive play (1 RCT), waitlist with ongoing existing regimen of physiotherapy and occupational therapy (1 RCT), acupuncture (1 RCT), and active release technique (1 RCT). The effectiveness of Rolfing was evaluated for 3 conditions: cerebral palsy (2 RCTs), low back pain (2 RCTs), fibromyalgia (1 RCT), and one pre-clinical condition: hamstring tightness (1 RCT). Trials ranged in size from 8 to 60 participants, and follow-up ranged from none (assessment of outcome immediately post-intervention) to 9 months.

The trials are grouped by the condition they address and discussed in more detail below.

D1.1 – Population 1: Spastic Cerebral Palsy

D1.1.1 – list of studies

Two RCTs in children with spastic cerebral palsy were identified.

One trial(12) was a 2-arm parallel trial of 26 children randomised to myofascial structural integration (MSI) or waitlist (phase 1), followed by an open label extension (phase 2) in which wait-listed children received the intervention. All children in the trial continued to participate in their usual treatment regime comprising physiotherapy +/- occupational therapy, medication, other complementary therapies, and recreational activities. Children aged < 4 years with spastic cerebral palsy, or mixed cerebral palsy with spasticity and Gross Motor Function Classification System (GMFCS) level of II, III or IV or level II, III, IV on the Manual Ability Classification System (MACS) in children at level I of GMFCS, were included.

The second trial(9) was a 2-arm crossover trial of 8 children randomised to MSI or interactive play (IP). All children in the trial continued to receive physical and occupational therapy and to participate in regular recreational activities. Children aged 2-7 years with spastic cerebral palsy of mild to moderate severity (GMFCM levels II, III and IV) were included.

D1.1.2 – risk of bias summary

The ratings for results in both trials are presented in Figure 2 and Figure 3, below.

All results, for both trials, were judged to be at high risk of bias overall. Both results for the Loi et al study(12) were at high risk of bias arising from the randomisation process with lack of blinding and inappropriate analysis leading to a judgement of high risk of bias on domain 2 (deviations from intended interventions). Gross Motor Function and Physical function/Impairment results were rated low risk on domain 3 (bias due to missing outcome data) and domain 4 (bias in measurement of the outcome).

In the second trial,(9) all results were considered high risk of bias due to measurement of the outcome (domain 4). There were some concerns related to bias arising from the randomisation process (domain 1) for all results presented in this trial and due to concern that outcome assessors were aware of intervention allocation and the possibility that this would have influenced assessment (domain 2 Part 1).

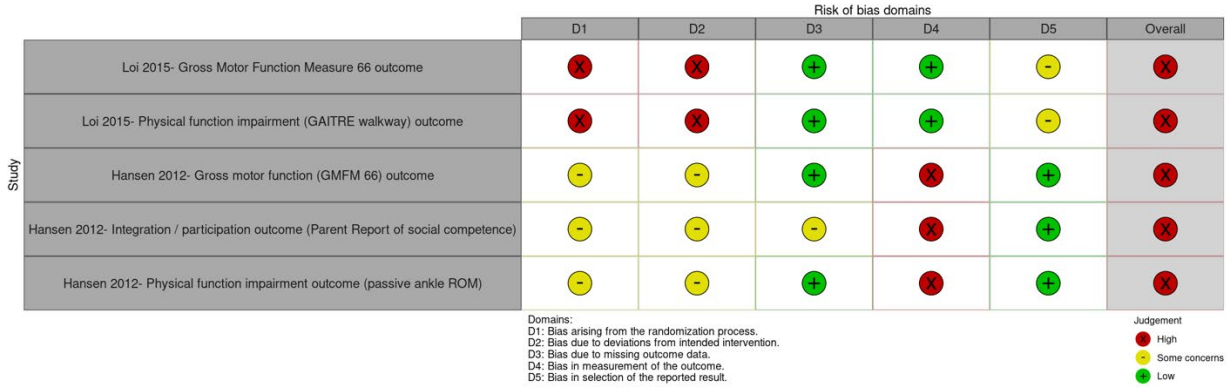


Figure 2. Risk of bias summary: review authors' judgments about each risk of bias item for each result reported – Cerebral Palsy

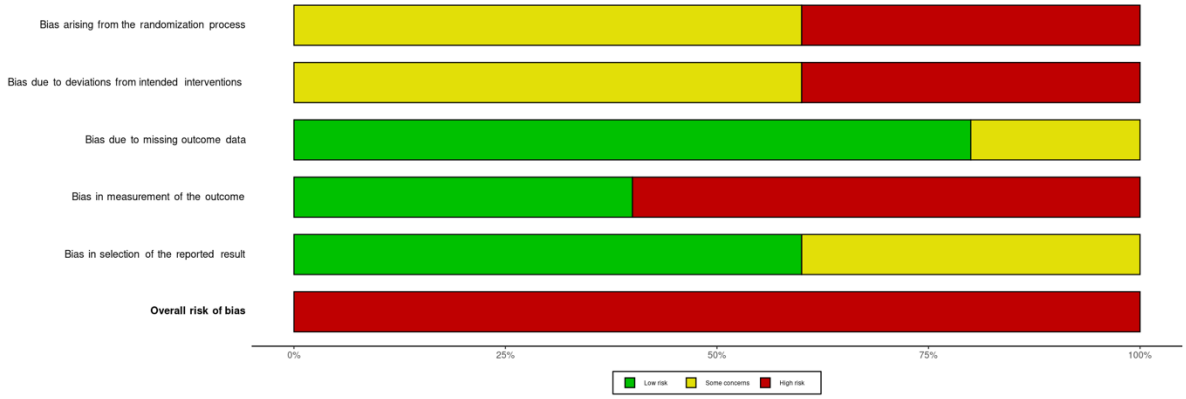


Figure 3. Risk of bias graph: review authors' judgments about each risk of bias item for each result reported presented as percentages – Cerebral Palsy

D1.1.3 – effects of intervention

Main Comparison: Structural Integration vs waitlist (+ usual treatment in both groups) (12)

Gross motor function

Gross motor function was measured with the Gross Motor Function Measure-66 (GMFM-66, score out of 100, where higher scores denote better performance). The trial did not report GMRM-66 scores at follow-up for the randomised sample. Very low certainty evidence (downgraded twice for bias and twice for imprecision) states 'There was a significant effect of time' (p=0.009) 'but no significant effect of group' (p=0.537) 'and no significant time by group interaction' (p=0.350). That is, the participants in both groups improved over time, with no difference between Rolfing and control groups. The analysis was per-protocol (participants were analysed according to the intervention received rather than the intervention to which they were randomised).

Physical function/impairment

Physical function/impairment was measured with the GAITRite® electronic walkway. No results were reported for the randomised sample for this outcome.

Other Comparison: Myofascial Structural integration vs Interactive Play Sessions (+ usual treatment in both groups)(9)

Gross motor function

Gross motor function was measured with the Gross Motor Function Measure-66 (GMFM-66, score out of 100 where higher scores denote better performance). Very low certainty evidence (downgraded twice for bias and once for imprecision) reports increased gross motor function scores with both interventions (4.49 points for MSI and 1.52 points on the GMFM-66 for IP). The analysis was modified intention to treat (participant with missing outcome data was excluded). Using individual participant data provided in the publication intention-to-treat analysis was conducted of the first crossover phase data (as the methods of cross-over analysis used by trialists was not reported and a participant was excluded from analysis). This analysis found an increase in GMFM-66 scores from baseline of 5.19 (SD 3.88) for MSI and 0.73 (SD 2.05) for IP. There was no significant difference in mean change between the MSI and IP interventions (difference in mean change -4.47 points (94%CI -9.84 to +0.90). The evidence was very uncertain (downgraded twice for bias and once for imprecision)

Integration / participation

The method of measurement of participation is not clearly reported but appears to have been via parent completion of the WHODAS 2.0 (an assessment tool directly linked to the International Classification of Functioning, Disability and Health). The trial reports there was 'No trend observed in the International Classification of Functioning Interview responses.' The evidence was very uncertain (downgraded twice for bias and twice for imprecision).

Physical function/impairment

Physical function was measured by passive ankle range of motion (method of measurement not reported). The trial reports 'We did not observe consistent improvements in ankle range of motion (ROM) across the group. However, three children showed considerable improvements in ankle dorsiflexion after myofascial structural integration treatment.' The evidence was very uncertain (downgraded twice for bias and twice for imprecision).

D1.2 – Population 2: Low Back Pain

D1.2.1 – list of studies

Two RCTs were identified evaluating the effectiveness of Rolfing in populations with low back pain.

The first trial(7) was a two-arm parallel trial of 36 adults with non-specific back pain of unspecified severity and duration. Participants were randomised to receive Structural Integration (SI) or Fascial Fitness (FF). Follow up was after a 3-week intervention period.

The second trial(11) was a two-arm parallel trial of 46 adults 18-65 years who have been experiencing bothersome (self-rated VAS scale of bothersomeness ≥3 on 11-point scale) chronic low back pain for more than 6 months. Participants were randomised to receive ten sessions of Structural Integration which was delivered in accordance with the Rolf Ten Series protocol in addition to outpatient rehabilitation or to outpatient rehabilitation alone. Follow-up duration was 20 weeks.

D1.2.2 – risk of bias summary

Risk of bias was rated separately for each result reported in the trial. As the ratings for each result were identical, a single figure is provided, and the rating is discussed jointly. The risk of bias overall in both trials was high. (Figure 4 and Figure 5)

In the trial by Jacobson et al(11), domain 4 (measurement of the outcome) was rated at high risk of bias, as it was considered likely that assessments could have been influenced by knowledge of the intervention due to the lack of participant blinding and use of self-reported outcome measures. For domain 5 (selection of the reported results), no protocol or prespecified analysis plan could be identified to exclude the possibility that reported outcome data were selected on the basis of the results, from multiple outcome measurements (e.g., scales, definitions, time points) within the outcome domain, or from multiple analyses of the data, leading to rating 'some concerns.'

In the trial by Baur et al,(7) the risk of bias in the randomisation process (Domain 1) was rated high, due to insufficient information on the allocation sequence concealment and no baseline demographic characteristics reported. For domain 2 (deviations in from the intended intervention) there were some concerns identified due to the high probability that participants and therapists were not blinded and uncertainty as to whether an intention to treat analysis was used. For domain 4 (measurement of the outcome) it is possible that assessments could have been influenced by knowledge of the intervention due to the lack of participant blinding and use of self-reported outcome measures. For domain 5 (selection of the reported results), no protocol or prespecified analysis plan could be identified to exclude the possibility that reported outcome data were selected on the basis of the results, from multiple outcome measurements (e.g., scales, definitions, time points) within the outcome domain, or from multiple analyses of the data.

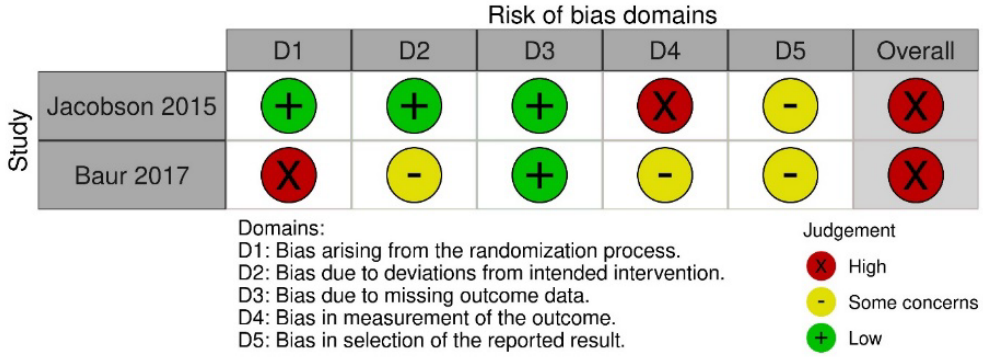


Figure 4: Risk of bias summary: review authors' judgments about each risk of bias item for each result reported – Low Back Pain (N.B. The assessments for each result reported in each trial were identical)

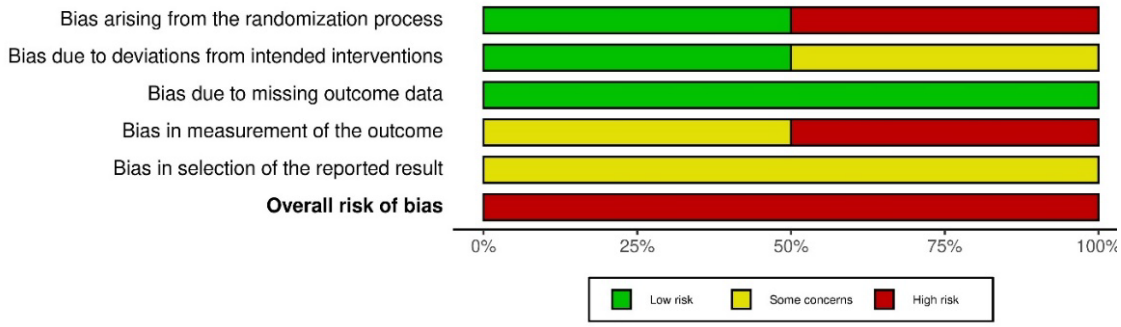


Figure 5: Risk of bias graph: review authors' judgments about each risk of bias item for each result reported presented as percentages – Low Back Pain

D1.2.3 – effects of intervention

Main Comparison: Structural integration in addition to outpatient rehabilitation vs outpatient rehabilitation alone

Pain

In a trial by Jacobson et al (2015) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found greater within group change in median VAS pain bothersomeness and SF-36 bodily pain subscale in the intervention group (structural integration + outpatient rehabilitation group) compared to control (outpatient rehabilitation), however no significant between group difference was identified.(11) A significant difference in favour of the intervention group was found for SF-36 item bodily pain subscale. It is important to note that participants in the control intervention (outpatient rehabilitation) did not change from baseline to follow up (VAS bothersomeness 0 IQR -24.5 to 6.5; SF36 bodily pain subscale median change 0 IQR 0 to 11). (11)

Physical functioning / disability

In a trial by Jacobson et al (2015) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found a significant between group difference in favour of the intervention group (structural integration + outpatient rehabilitation group) for Roland-Morris Disability Questionnaire (RMDQ) scores.(11) The reduction in RMDQ score with structural integration + outpatient rehabilitation (median 2 points) is at the lowest level of difference that would be considered clinically relevant. No between group difference was found for SF-36 item role physical subscale (p=0.84), for the number of days/half days disabled over the past week (p=0.45), or for the physical function subscale (p=0.35).

Quality of life:

In a trial by Jacobson et al (2015) very low certainty evidence found no between group difference for median change in SF-36 item general health subscale, or for the SF-36 physical composite score.(11)

Mental Health:

In a trial by Jacobson et al (2015) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found no between group difference for median change in SF-36 mental composite score, SF-36 item role emotional subscale and SF-36 item mental health subscale.(11)

Social functioning:

In a trial by Jacobson et al (2015) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found a significant between group difference in social functioning score in favour of Structural Integration + Outpatient Rehabilitation. For the Structural Integration + Outpatient Rehabilitation group there was a median change from baseline score of 0 (IQR 0 to 16) and for the Outpatient Rehabilitation group alone the median change from baseline was also 0 (with an IQR of -13 to 0).(11)

Analyses were a modified intention to treat with data for participants lost to follow up analysed in the group to which participants were randomised and imputation of data using the last observation carried forward method.

Other Comparison: Structural integration vs Fascial Fitness

Pain

In the trial by Baur et al (2017) very low certainty evidence (downgraded twice for bias and once for imprecision) found pain (measured on a 0-10cm VAS scale) improved equally over time in both the Structural Integration group (intervention, baseline: 2.9 ± 1.6; follow up: 1.8 ± 1.4), and in the Fascial

Fitness group (control, baseline: 2.5 ± 1.9; follow up: 1.6 ± 1.5) but identified no time by group interaction effect (p=0.83 for group difference).(7) There was insufficient information to definitively determine the method of analysis (intention-to-treat, modified-intention-to-treat, per protocol) used in this study but it was possibly a modified intention to treat analysis.

D1.3 – Population 3: Fibromyalgia

D1.3.1 – list of studies

One RCT was identified evaluating the effectiveness of Rolfing in a population with fibromyalgia.(15)

The trial was a randomised controlled trial of 60 participants with randomisation of an equal number of participants to 3 arms: Rolfing alone (n=20), acupuncture alone (n=20), and Rolfing plus acupuncture (n=20).

The Protocol for the present review, specified that studies where Rolfing was used as an adjunct intervention to another intervention are includable, provided that the specific effect of Rolfing could be determined. Therefore, the present study was included. The results for the Rolfing study arm, and for the acupuncture study arm, were extracted and analysed. However, no analysis was conducted on the Rolfing plus acupuncture arm, as the specific effect of Rolfing could not be determined in this arm.

The trial took place in Brazil, and the participants were followed up for 3 months. The participants were individuals over 18 years old who had been diagnosed by a neurologist as having fibromyalgia (according to the American College of Rheumatology 1990 criteria) and had not been treated with either Rolfing or acupuncture in the previous year. The mean age of the participants was 53, and the participants were predominantly (90%) female. In addition to the intervention received (Rolfing, Acupuncture, or both), participants in all groups maintained their previous routine ambulatory treatment (although no further details of its nature were provided).

D1.3.2 – risk of bias summary

Risk of bias was rated separately for each result reported in the trial. However, because the ratings for each result were identical, a single figure is provided, and the rating is discussed jointly. The risk of bias overall was high. (Figure 6 and Figure 7)

There was a high risk of bias for Domain 1 due to the lack of information on allocation concealment and higher baseline Fibromyalgia Impact Questionnaire scores in the acupuncture group (compared to other groups). There were some concerns for domain 2 (deviations from intended interventions) predominantly due to lack of blinding (which was impossible due to the nature of the compared interventions), and for domain 4 (measurement of the outcome). Risk of bias was low for domain 3 (missing outcome data) and domain 5 (selection of the reported result).

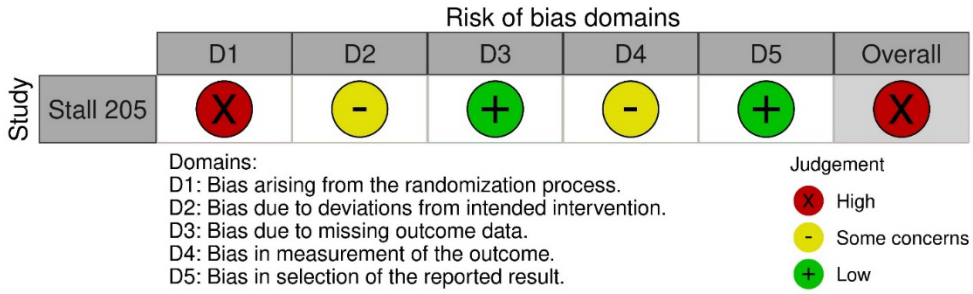


Figure 6: Risk of bias summary: review authors' judgments about each risk of bias item for each result reported – Fibromyalgia (N.B. the assessments for each result reported in the trial were identical, and are therefore not presented separately)

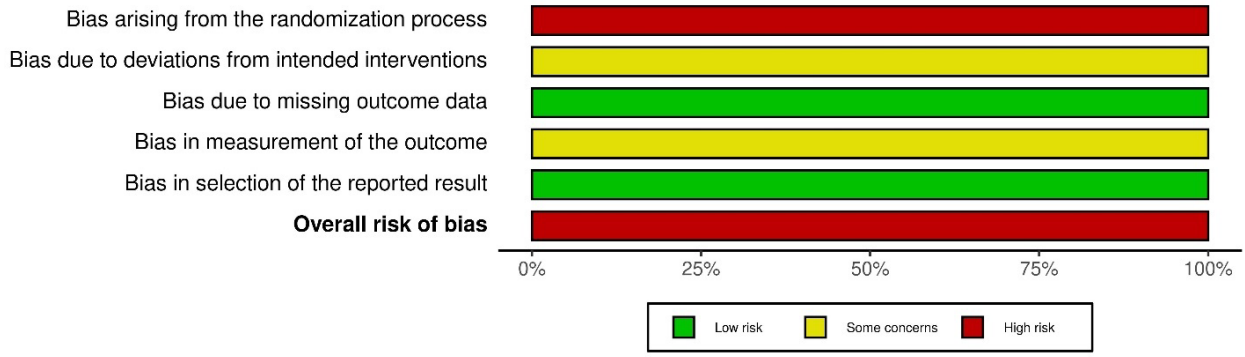


Figure 7: Risk of bias graph: review authors' judgments about each risk of bias item for each result reported presented as percentages – Fibromyalgia

D1.3.3 – effects of intervention

Main Comparison: Rolfing vs Acupuncture

Pain

The Pain Verbal Numeric Analogue Scale score for each group was reported at baseline, immediately post-intervention, and at 3 months post-intervention. Study authors did not assess the differences between groups at those time points. The differences between the Rolfing and Acupuncture groups were calculated. Very low certainty evidence (downgraded once for bias and twice for imprecision) found there was no difference between groups at baseline (MD 0.05, 95% CI -0.79 to 0.89, p=0.91), immediately post-intervention (MD -0.10, 95% CI -1.58 to 1.38, p=0.89), or at 3 months post-intervention (MD 0.25, 95% CI -1.21 to 1.71, p=0.74).

Quality of life

Quality of life was measured using the Fibromyalgia Impact Questionnaire (FIQ) score. The study authors reported the significance of the differences between groups but do not specify the time point. Very low certainty evidence (downgraded once for bias and twice for imprecision) found no significant difference between acupuncture and Rolfing groups (p= 0.87; timepoint for measurement unclear). The differences between the Rolfing and Acupuncture groups at immediately post treatment and 3 months post treatment were calculated. There were no significant between group differences immediately post treatment (mean difference -7.1 95% CI -19.0 to 4.8) or at 3 months post treatment (mean difference -3.24 95% CI -14.1 to 7.6).

There was insufficient information to definitively determine the method of analysis (intention to treat, modified intention to treat, per protocol) used in this study but it was possibly an intention to treat analysis.

D1.4 – Population 4: Hamstring tightness

D1.4.1 – list of studies

One RCT was identified,(14) evaluating the effectiveness of Rolfing Structural Integration in a population with hamstring tightness.

The trial was a parallel 2-arm, randomised controlled trial conducted in India. The trial included 40 individuals, 18-25 years old, diagnosed with hamstring tightness (limited extension range of less than 60 degrees) using the active knee extension method. The participants were randomised to Rolfing Structural Integration (RSI) or Active Release Technique (ART) group. The timing of follow-up in this trial is not reported but outcomes were likely to have been assessed immediately following delivery of the interventions.

D1.4.2 – risk of bias summary

Risk of bias was rated separately for each result reported in the trial. As the ratings for each result were identical, a single figure is provided, and the rating is discussed jointly. The risk of bias overall was high. (Figure 8 and Figure 9)

The risk of bias in the randomisation process (Domain 1) presented some concerns due to insufficient information on the allocation sequence concealment and no baseline characteristics reported. There was a high risk of bias for deviations from intended interventions (Domain 2) as participants were probably aware of interventions provided, and insufficient details provided on the number of participants in each group. Outcome measurement was considered at high risk of bias, owing to assessment by unblinded assessors aware of the intervention received (Domain 4). The risk of bias in selection of the reported results presented some concerns due to the unavailability of pre-specified plan for the trial and lack of clarity whether the results were selected from multiple outcome measurements or multiple data analyses.

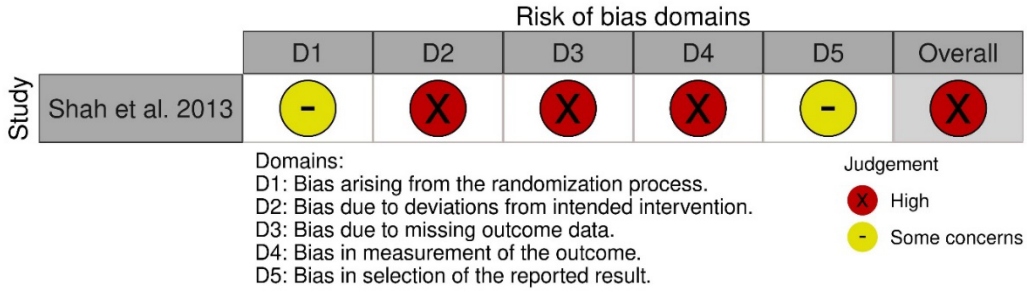


Figure 8: Risk of bias summary: review authors' judgments about each risk of bias item for each result reported – Hamstring tightness (N.B. the assessments for each result reported in the trial were identical, and are therefore not presented separately)

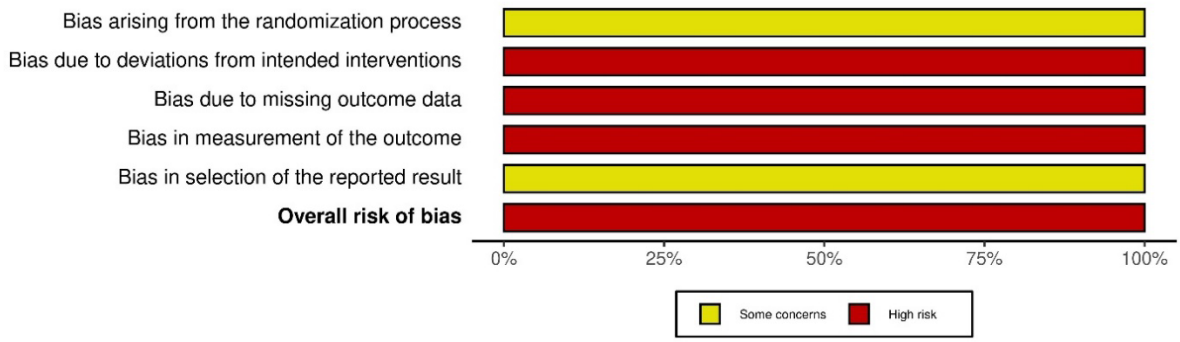


Figure 9: Risk of bias graph: review authors' judgments about each risk of bias item for each result reported presented as percentages – Hamstring tightness

D1.4.3 – effects of intervention

Main Comparison: Rolfing alone vs Active Release Technique (ART)

Flexibility - Sit and Reach distance test

Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the mean change (in centimetres) between baseline measurement and immediately post treatment was 8.58 (SD 4.01) for the Rolfing structural integration group and 10.9 (SD 5.39) for the Active Release Technique group, with no significant difference between groups P = 0.16.

Flexibility - Popliteal angle

Popliteal angle (right side): Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the mean change in degrees between baseline measurement and immediately post treatment was 21 (SD 5.47) for the Rolfing structural integration group and 27.35 (SD 5.89) for the Active Release Technique group. There was a significant difference between groups in mean change from baseline to immediately post treatment in favour of the Active Release Technique (p=0.0011).

Popliteal angle (left side): Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the mean change in degrees between baseline measurement and immediately post treatment was 21.31 (SD 4.28) for the Rolfing structural integration group and 26.95 (SD 5.64) for the Active Release Technique group. There was a significant difference between groups in mean change from baseline to immediately post treatment in favour of the Active Release Technique (5.6 degrees more improvement; p=0.001).

There was insufficient information to determine the method of analysis (intention to treat, modified intention to treat, per protocol) used in this study.

Appendix E – Detailed risk of bias forms

E1 – Population 1: Spastic Cerebral Palsy

E1.1 – Grouping 1: RCTs

Risk of bias table – judgements for the results of the included studies

Table 10. Risk of bias table – judgements for the results of the included studies- Spastic Cerebral Palsy

	Spastic cerebral palsy				
	Hansen 2012			**Loi 2015**	
	Gross motor function Measure (GMFM 66)	*Integration / participation (Parent Report of social competence)*	*Physical function impairment (passive ankle ROM)*	*Gross Motor Function Measure 66 (GMFM 66)*	*Physical function impairment (GAITRE walkway)*
Domain 1. Randomisation process					
1.1	**PY**	**PY**	**PY**	**Y**	**Y**
1.2	**NI**	**NI**	**NI**	**PN**	**PN**
Note for 1.1 and 1.2	*Details not reported*	*Details not reported*	*Details not reported*	*Only states that assignment was through the use of a random number sorter. Reason to suspect that there was no allocation concealment.*	
1.3	**Y**	**Y**	**Y**	**PN**	**PN**
Note	*baseline imbalances present (see table 1)*			*no imbalances are apparent*	
1.0 Assessor's Judgement	**Some concerns**	**Some concerns**	**Some concerns**	**High**	**High**
Domain 2. Deviations from intended interventions					
2.1	**PY**	**PY**	**PY**	**Y**	**Y**
2.2	**PY**	**PY**	**PY**	**Y**	**Y**
Note for 2.1 and 2.2	*Blinding impossible: MSI vs Play*			*No blinding: waiting list vs Rolfing*	
2.3	**NI**	**NI**	**NI**	**NI**	**NI**
Note	*Details not reported: unclear if there are deviations due to trial context*			*Details not reported*	*Details not reported*
2.4	**NA**	**NA**	**NA**	**NA**	**NA**
Note	-	-	-	-	-
2.5	**NA**	**NA**	**NA**	**NA**	**NA**
Note	-	-	-	-	-
2.6	**PY**	**PY**	**PY**	**PN**	**PN**
Note	*8 participants total – 4 randomised to each group Investigators report change from baseline for 7 of the 8 randomised – this was considered a modified ITT analysis (analysis adheres to ITT principles except that participants with missing outcome data are excluded). According to RoB2 guidance a mITT analysis is considered appropriate for assessing the effects of assignment to intervention and the response is therefore PY.*			*The study randomised 26 children - 13 to treatment and 13 to waitlist. Investigators moved 3 from the waitlist to treatment group. Two children from each group did not complete treatment and were excluded from analysis (the randomised sample)*	

	It should be noted that the change score reported by the study is from both cross over periods and we do not know which baseline measure was used to determine the change score in the second cross over phase. Consequently, using IPD presented in the publication we calculated change score for all 8 participants in the group to which they were randomised for the first cross over period only (ITT analysis)			*Investigators added 5 children to the MSI group of the randomised sample (the pooled sample)* *The analysis was considered to be per protocol and inappropriate to estimate the effect of assignment to intervention*	
2.7	**NA**	**NA**	**NA**	**PY**	**PY**
Note				*potential for substantial impact*	
2.0 Assessor's Judgement	**Some concerns**	**Some concerns**	**Some concerns**	**High**	**High**
Domain 3. Missing outcome data					
3.1	**Y**	**N**	**Y**	**Y**	**Y**
Note	*data for all participants*	*Parent Report of social competence: not systematically reported, some qualitative-type notes in Table 1*	*data for all participants*	*data for all participants*	*data for all participants*
3.2	**NA**	**PN**	**NA**	**NA**	**NA**
Note	-	*Unclear but no NI option, so have to go PN*	-	-	-
3.3	**NA**	**NI**	**NA**	**NA**	**NA**
3.4	**NA**	**PN**	**NA**	**NA**	**NA**
Note	-	*it seems more to do with unsystematic data collection for this outcome*	-	-	-
3.0 Assessor's judgement	**Low**	**Some concerns**	**Low**	**Low**	**Low**
Domain 4. Measurement of the outcome					
4.1	**N**	**PN**	**PN**	**N**	**N**
Note	*GMF66 validated, scoring consistent*	*The method was probably appropriate*	*The method was probably appropriate*	*The method was appropriate*	
4.2	**N**	**PN**	**N**	**PN**	**N**
Note	*measured the same outcomes in both groups*			*children/family know of intervention and could potentially have made assessor aware*	*Comparable methods of outcome measurement*
4.3	**PY**	**PY**	**PY**	**PN**	**PY**
Note	*outcome assessors probably aware*			*assessor blind to treatment group*	*Assessors could potentially know*

				completed the GMFM 66	
4.4	**PY**	**PY**	**PY**	**NA**	**PN**
4.5	**PY**	**PY**	**PY**	**NA**	**NA**
Note for 4.4 and 4.5	*assessors probably could have been influenced, and probably yes, it is likely they were influenced*			-	*Data is objective– calculated by the system, but there is some subjectivity in the data that is used to calculate the indicators of foot function.*
4.0 Assessor's Judgement	**High**	**High**	**High**	**Low**	**Low**
Domain 5. Selection of the reported results					
5.1	**Y**	**Y**	**Y**	**NI**	**NI**
Note	*No registered protocol, but going by outcomes in methods vs outcomes in results, yes*			*There is a protocol. No details on the analysis but indicates the same primary and secondary outcomes, but whether analysis was in accordance with the analysis plan (if there was one) prior to unblinded outcome analysis is not clear.*	
5.2	**PN**	**PN**	**PN**	**NA**	**NA**
Note	*reported results for the outcome domain correspond to all intended outcome measurements.*			-	-
5.3	**PN**	**PN**	**PN**	**NA**	**NA**
Note	*reported results for the outcome domain correspond to all intended outcome measurements.*			-	-
5.0 Assessor's Judgement	**Low**	**Low**	**Low**	**Some concerns**	**Some concerns**
Domain 6. Overall Bias					
Assessor's overall Judgement	**High**	**High**	**High**	**High**	**High**
General Note	this is a crossover study, but is reported as if it were a parallel study			-	-

E1.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

E2 – Population 2: Low Back Pain

E2.1 – Grouping 1: RCTs

Risk of bias table – judgements for the results of the included studies

Table 11. Risk of bias table – judgements for the results of the included studies- Low Back Pain

	Low Back Pain	
	Baur 2017[1]	**Jacobson 2015[2]**
	Pain outcome using the Visual analogue scale	*Pain outcome using the Visual analogue scale, the Roland-Morris Disability Questionnaire (RMDQ), and the Short Form 36 Health Survey (SF36)*
Domain 1. Randomisation process		
1.1	**NI**	**Y**
1.2	**NI**	**Y**
Note for 1.1 and 1.2	*Details not reported*	*randomised; used opaque envelopes for allocation concealment*
1.3	**PN**	**N**
Note	*Differences in pre scores for negative body image - lower in SI; vital body dynamic - lower in FF but not key predictors for the outcome of pain; other baseline data balanced*	*baseline looks good and assessed p-value for diffs at baseline*
1.0 Assessor's Judgement	**High**	**Low**
Domain 2. Deviations from intended interventions		
2.1	**Y**	**Y**
2.2	**Y**	**Y**
Note for 2.1 and 2.2	*Blinding unlikely to have occurred*	*blinding impossible for both providers & patients*
2.3	**NI**	**PN**
Note	*Details not reported*	*probably not, since non-adherence is also likely outside trials*
2.4	**NA**	**NA**
Note	-	-
2.5	**NA**	**NA**
Note	-	-
2.6	**PY**	**Y**
Note	*Study investigators randomised 36 subjects- 18 to each group.* *During the study period 3 participants dropped out, 2 from the intervention (SI) and 1 from the comparator. Study investigator analysed the data for 33 of the 36 participants randomised. While it could not be determined with certainty whether the remaining participants were analysed in the group to which they were randomised it was considered likely.*	*Study investigators randomised 46 subjects- 23 to each group.* *5 participants were lost to follow-up – 2 from the SI+OR group and 3 from the OR alone group. The report states "The initial treatment assignment was not altered for any participant and we found no evidence of crossover'. Data for participants lost to follow up was imputed with LOCF. This was considered to be mITT analysis which is appropriate for assessing the effects of assignment to intervention*

	The analysis was considered to be mITT analysis. According to RoB2 guidance, mITT analysis is considered appropriate for assessing the effects of assignment to intervention.	
2.7	**NA**	**NA**
Note	-	-
2.0 Assessor's Judgement	**Some concerns**	**Low**
Domain 3. Missing outcome data		
3.1	**Y**	**Y**
Note	*Very small dropout so "nearly all"*	*data for all participants*
3.2	**NA**	**NA**
Note	-	-
3.3	**NA**	**NA**
3.4	**NA**	**NA**
Note	-	-
3.0 Assessor's judgement	**Low**	**Low**
Domain 4. Measurement of the outcome		
4.1	**N**	**N**
Note	*The method was appropriate*	*The method was appropriate*
4.2	**PN**	**PN**
Note	*Comparable methods of outcome measurement*	*measurement ascertainment between groups probably the same*
4.3	**Y**	**Y**
Note	*Assessors could potentially know- self rating of pain*	*Outcome assessors were aware of intervention received*
4.4	**Y**	**Y**
4.5	**Y**	**PY**
Note for 4.4 and 4.5	*assessors probably could have been influenced and yes, it is likely they were influenced*	*assessors probably could have been influenced and probably yes, it is likely they were influenced*
4.0 Assessor's Judgement	**High**	**High**
Domain 5. Selection of the reported results		
5.1	**NI**	**Y**
Note	*No registered protocol and details are not reported in the article*	*No changes from the registered protocol*
5.2	**PN**	**NI**

Note	*reported results for the outcome domain correspond to all intended outcome measurements.*	*Not clear if results selected from multiple outcome measurements or multiple data analyses*
5.3	**PN**	**NI**
Note	*outcomes in the methods match those in the results*	*Details not reported*
5.0 Assessor's Judgement	**Some concerns**	**Some concerns**
Domain 6. Overall Bias		
Assessor's overall Judgement	**High**	**High**
General Note	-	-

E2.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

E3 – Population 3: Fibromyalgia

E3.1 – Grouping 1: RCTs

Risk of bias table – judgements for the results of the included studies

Table 12. Risk of bias table – judgements for the results of the included studies- Fibromyalgia

	Fibromyalgia
	Stall 2015[3]
	Pain and Physical Function- Global outcomes
Domain 1. Randomisation process	
1.1	**NA**
1.2	**NI**
Note for 1.1 and 1.2	*Details not reported*
1.3	**Y**
Note	*baseline imbalances present (see table 1) and significant differences reported in Table 2*
1.0 Assessor's Judgement	**High**
Domain 2. Deviations from intended interventions	
2.1	**Y**
2.2	**Y**
Note for 2.1 and 2.2	*Participants & personnel aware of intervention*
2.3	**NI**
Note	*unclear if there are deviations due to trial context*
2.4	**NA**
Note	-
2.5	**NA**
Note	-
2.6	**PY**
Note	*The study randomised 60 participants – 20 to each group* *Outcomes reported at the end of 10 sessions of treatment and 3 months after treatment.* *The number of participants with data on the outcomes post treatment and at 3 months is not presented in the results table but the text states 'All subjects were evaluated in the beginning, at the end of the 10 sessions and three months after treatment." Though it is not possible to determine with certainty whether the analysis was ITT it is considered likely.*
2.7	**NA**
Note	-
2.0 Assessor's Judgement	**Some concerns**

Domain 3. Missing outcome data	
3.1	**PY**
Note	*Probably all outcome data for all participants are available*
3.2	**NA**
Note	-
3.3	**NA**
3.4	**NA**
Note	-
3.0 Assessor's judgement	**Low**
Domain 4. Measurement of the outcome	
4.1	**N**
Note	*The method was appropriate*
4.2	**PN**
Note	*same measurement methods and thresholds*
4.3	**Y**
Note	*participant-reported outcomes*
4.4	**Y**
4.5	**PN**
Note for 4.4 and 4.5	*no reason to believe the assessment was influenced*
4.0 Assessor's Judgement	**Some concerns**
Domain 5. Selection of the reported results	
5.1	**PY**
Note	*No registered protocol but researchers' pre-specified intentions are available*
5.2	**N**
Note	*outcomes in the methods match those in the results*
5.3	**N**
Note	*Clear and consistent*
5.0 Assessor's Judgement	**Low**
Domain 6. Overall Bias	
Assessor's overall Judgement	**High**
General Note	-

E3.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

E4 – Population 4: Hamstring tightness

E4.1 – Grouping 1: RCTs

Risk of bias table – judgements for the results of the included studies

Table 13. Risk of bias table – judgements for the results of the included studies- Hamstring tightness

	Hamstring tightness
	Shah 2013[4]
	Popliteal angle measurement and Sit and Reach test
Domain 1. Randomisation process	
1.1	**NI**
1.2	**NI**
Note for 1.1 and 1.2	*states that participants randomised but no info; no info on allocation concealment*
1.3	**NI**
Note	*no statement that NS differences at baseline; no baseline characteristics*
1.0 Assessor's Judgement	**Some concerns**
Domain 2. Deviations from intended interventions	
2.1	**PY**
2.2	**Y**
Note for 2.1 and 2.2	*Participants probably aware of interventions; providers certainly (compares Rolfing & ART)*
2.3	**NI**
Note	*unclear if there are deviations due to trial context*
2.4	**NA**
Note	-
2.5	**NA**
Note	-
2.6	**NI**
Note	*The study randomised 40 subjects- but did not report the number randomised to each study group or the number analysed in each group.* *The outcome is measured immediately post treatment so while it is likely to be outcome data for all participants this cannot be confirmed and it cannot be determined whether participants were analysed in the group to which they were randomised.* *Considered there was insufficient information to determine if the analysis was appropriate to estimate the effect of assignment to intervention*
2.7	**NI**
Note	*Cannot tell since we don't know how many randomised to each group*
2.0 Assessor's Judgement	**High**

Domain 3. Missing outcome data	
3.1	**NI**
Note	*Not clear if data available for all participants*
3.2	**PN**
Note	*Unclear but no NI option, so have to go PN*
3.3	**NI**
3.4	**NI**
Note	*Missingness could depend on true value & is it likely - NI for both*
3.0 Assessor's judgement	**High**
Domain 4. Measurement of the outcome	
4.1	**N**
Note	*Test were reasonable to test the outcome*
4.2	**NI**
Note	*Details not reported*
4.3	**PY**
Note	*Outcome assessors probably were aware of intervention received*
4.4	**PY**
4.5	**NI**
Note for 4.4 and 4.5	*assessment could have been influenced by knowledge of the intervention; Cannot say for certain whether it is likely the assessment was influenced by knowledge of the intervention*
4.0 Assessor's Judgement	**High**
Domain 5. Selection of the reported results	
5.1	**NI**
Note	*No registered protocol and no info if trial analysed per pre-specified plan*
5.2	**NI**
Note	*Not clear if results selected from multiple outcome measurements or multiple data analyses*
5.3	**NI**
Note	*Details not reported*
5.0 Assessor's Judgement	**Some concerns**
Domain 6. Overall Bias	
Assessor's overall Judgement	**High**
General Note	-

E4.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

Appendix F – Detailed study descriptions and outcomes

F1 – Population 1: Spastic Cerebral Palsy

F1.1 – Grouping 1: RCTs

Two RCTs in children with spastic cerebral palsy were identified (Table 14)

Table 14: Cerebral Palsy – Characteristics of Included studies

Author Year Location	Study design	Follow up	Randomised total (each group)	Participants (health status / condition)	Age mean (SD) or range	Gender	Intervention type*	Intervention: dose, duration, frequency*	Comparator type*	Comparator: dose, duration, frequency*
Loi et al **(12)** Buysse et al**(8)** Price at al **(32)** **USA**	Parallel RCT-2-arm (phase 1 of this study) #	9 months	26 (13 MSI; 13 wait list) **	Children < 4 years of age, diagnosis of spastic cerebral palsy (or mixed CP with spasticity), GMFCS of level II, III or IV or level of II, III, IV on the MACS for children who are GMFCS 1	MSI: mean 2.4 (1.0) Waitlist: mean 2.2 (0.8)	MSI: 60% female; 40% male Waitlist: 44% female; 56% male	Myofascial Structural Integration + usual treatment	10 sessions; each session 60-90 minutes; 1 session per week. Children continued their existing regimen of PT and depending on the child OT, medication, other complementary treatments, and other recreational activities	Waitlist + usual treatment	Existing regimen of PT and depending on the child OT, medication, other complementary treatments, and other recreational activities
Hansen et al (9) **USA**	Crossover RCT 2-arm	NR (likely following 10 weekly sessions of the intervention)	8 (4 MSI, 4 control)	Children with spastic cerebral palsy, mild to moderate severity (Gross Motor Function Classification Measure levels II to IV)	2-7 years old	37.5% female (n=3) 62.5% male (n=5)	Myofascial Structural Integration + usual treatment	10 weekly, 60-90 minute long sessions. Children continued to receive PT and OT during the study + participated in their regular recreational activities	Interactive play sessions + usual treatment	10 weekly, 60-90 minute long sessions. Children continued to receive PT and OT during the study + participated in their regular recreational activities

*brief description; see expanded details in TIDieR Table; #phase 2 of the study was an open label extension in which children randomised to waitlist received MSI; ** the randomised sample is comprised of 26 children receiving treatment (n=15) or waitlist (n=9). 13 children were initially randomised to treatment and 13 to waitlist, but 3 were moved from the waitlist group to the treatment group to accommodate their circumstances. Two children, one from each group, did not complete the treatment protocol and were not further analysed. SD standard deviation; RCT randomised controlled trial; MSI myofascial structural integration; GMFCS Gross Motor Function Classification System; GMFCM Gross Motor Function Classification Measure; MACS Manual Ability Classification System; PT physical therapy; OT occupational therapy; NR not reported

TIDieR Table

The TIDieR Table was completed for the Myofascial Structural Integration (MSI) intervention (but not the waitlist) in Loi et al(12) and for the MSI and Interactive Play interventions in Hansen et al.(9) (Table 15)

In both trials, MSI was delivered in 10 weekly sessions of 60-90 minutes' duration by an experienced certified Rolfer following a specific, structured treatment plan. Details of the procedures, provider and how and where delivered are not reported for the Interactive Play comparator arm of the Hansen et al(9) trial.

Table 15: Cerebral Palsy – TIDieR Table

Author, year	Brief name	Why	What (material)	What (procedure)	Who provided	How	Where	When and how much	Tailoring	Modifications	How well (planned)	How well (actual)
Buysse et al; Loi et al; Price et al**(8, 12, 32)**	Myofascial Structural Integration (MSI) in addition to physical therapy and depending on child occupational therapy, medication, other complimentary treatments, and recreational activities	To improve motor function by manipulation of muscle and fascial targeting local structural changes in the muscle and extracellular matrix of muscle before the development of contractures and deformities	Not reported	Manipulation of muscle and surrounding fascia following a specific structure sequence that addresses the entire body	A single Certified Advanced Rolfer, >35 years' experience working with young children	Individual, face-to-face	"Practitioners private studio"	10 sessions of 60-90 minutes, 1 session per week	Not reported	None reported	Not reported	All children receiving SI completed 9 or 10 of the scheduled sessions

Hansen et al(9)	2 active interventions in addition to usual treatment comprising physical and occupational therapy and usual recreational activities A. Myofascial Structural Integration (MSI) B. Interactive Play (IP)	To reduce spasticity and contractures by targeting the muscle, extracellular matrix and fascial connections with deep tissue manipulation techniques	Not reported	A. MSI - followed a structured progression systematically treating the core and extremities over the course of 10 sessions B. IP-Not described	A. MSI – Single Certified Advanced Rolfer, 31 years' experience working with young children B. IP – "study author"; not further described	A. MSI – not described, presumably individual, face-to-face B. IP – not described	A. MSI – "providers private office" B. IP – not described	A. MSI – 10 sessions of 60-90 minutes, 1 session per week B. IP – 10 sessions of 60-90 minutes, 1 session per week	A. MSI – therapist modified the protocol to accommodate the needs of young children (e.g., work done on floor during play, standing or in parents lap, breaks provided, parents present to interact and support child) B. IP – Not reported	None reported	Not reported	A. MSI – Not reported B. IP – 3 children received less than the full play protocol

Effects of intervention (for all outcomes rated 4 or higher by the Natural Therapies Working Committee (NTWC))

Outcome 1: Activities of daily living (rated 8 by the NTWC)

The included studies did not measure this outcome.

Outcome 2: Fine motor skills / self-care (rated 7 by the NTWC)

The included studies did not measure this outcome.

Outcome 3: Gross Motor Function (rated 7 by the NTWC)

Both trials assessed gross motor function using the Gross Motor Function Measure-66 Item (GMGM-66). (Table 16)

In the trial by Loi et al(12), very low certainty evidence (downgraded twice for bias and twice for imprecision) comparing MSI to a waitlist (in addition to the existing treatment regimen), post treatment GMFM-66 scores for the randomised sample were not reported. Data extracted from Figure 3 in the study report shows small increases in estimated marginal mean GMGM-66 scores from baseline to follow-up in the MSI and waitlist groups in the pooled sample. For both the randomised and pooled samples, the investigators state there was a significant effect of time on gross motor function, but no significant effect of group and no significant time by group interaction. The analysis was per-protocol (participants were analysed according to the intervention received rather than the intervention to which they were randomised).

The trial by Hansen et al(9), very low certainty evidence (downgraded twice for bias and once for imprecision) comparing MSI to interactive play (both in addition to the existing treatment regimen), reported increased GMFM-66 scores for both study groups based on data from both crossover periods for 7 of the 8 randomised participants (mean increase of 4.49 points in children receiving MSI and 1.52 points for children receiving interactive play). The analysis was modified intention to treat (participant with missing outcome data was excluded). Using individual participant data provided in the publication intention-to-treat analysis was conducted of the first crossover phase data (as the methods of cross-over analysis used by trialists was not reported and a participant was excluded from analysis). In our analysis of data from the first study period only and including all participants (8 of 8 participants randomised) the mean change from baseline with MSI was 5.19 points, and with interactive play 0.73 points, with a difference in mean change of -4.47 points (95% CI -9.84 to 0.90).

Table 16: Outcome: Gross Motor Function - Cerebral Palsy

Outcome	Measurement	Measure priority	Treatment group	Baseline Mean (SD)	Follow-up (immediately post treatment)	Results (change from baseline as reported in the publication)	Notes
Study: Loi et al(12); Buysse et al(8); Price et al(32)							
Gross motor function - randomised sample*	Gross Motor Function Measure -66 Item (GMFM-66)	1	MSI	40.6 (14.7) #	Not reported	Not reported	The authors report that there was "no significant effect of group" (p=0.537), i.e., there was with no difference between Rolfing and control groups.
			Waitlist	37.9 (19.8) #	Not reported		
Gross motor function – pooled sample**			MSI	43.0$ (not reported)	45.3$(not reported)	Not reported	Baseline and follow-up data for the pooled sample was extracted from Figure 3 using Web Plot Digitizer (version 2.6.9, 2020) There was no effect of group (p= 0.515), i.e., there was no significant difference between Rolfing and control.
			Waitlist	39.2$ (not reported)	40.2$ (not reported)		

Study: Hansen et al(9)							
Gross motor function	Gross Motor Function Measure -66 Item (GMFM-66) (Higher scores denote better performance)	1	MSI	Not reported	Not reported	4.49	The change from baseline reported in the publication is based on data from both crossover periods. Data from one participant was excluded (the child was not able to follow instructions and cooperate with the GMFM testing) and it is not clear which baseline measure was used to determine change score in the second cross over phase. Using individual patient data presented in Table 1 of the publication the mean change from baseline for phase 1 was calculated for all study participants (8 of 8 participants randomised). Difference in mean change scores were calculated using two-sample t-test with equal variances. Mean change for IP was 0.73 (SD 2.05; n=4) and for MSI was 5.19 (SD 3.88; n=4). Difference in mean change was -4.47 (95%CI -9.84 to 0.90).
			Interactive Play (IP)			1.52	

*the randomised sample is comprised of 26 children receiving treatment (n=15) or waitlist (n=9). 13 children were initially randomised to treatment and 13 to waitlist, but 3 were moved from the waitlist group to the treatment group to accommodate their circumstances. Two children, one from each group, did not complete the treatment protocol and were not further analysed
**the pooled sample includes the randomised sample plus 5 children who received MSI (as a result of receipt of additional study funding) but were not randomised to it. # scores at enrolment. Mean scores immediately prior to the interventions are not reported. $ Estimated marginal means.

Outcome 4: Integration / participation (rated 7 by the NTWC)

Participation was assessed in one study(9), providing very low certainty evidence (downgraded twice for bias and twice for imprecision) comparing MSI to interactive play (in addition to the existing treatment regimen). The method of measurement of participation is not clearly reported, but appears to have been via parent completion of the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). WHODAS 2.0 is an assessment tool directly linked to the International Classification of Functioning, Disability and Health items, that captures level of functioning in 6 domains of life, including participation. No data on participation was reported; the investigators stated: "No trend was observed in the International Classification of Functioning interview responses."

Outcome 5: Physical function / impairment (rated 7 by the NTWC)

Physical function/impairment was assessed in both studies using different methods of measurement. (Table 17)

One trial, Loi et al(12), compared MSI to a waitlist (both in addition to the existing treatment regimen); physical function was measured using the GAITRite® Electronic Walkway. Data on gait parameters were not reported for children randomised to MSI or waitlist. Results for the pooled sample were not reported by intervention group.

The second trial, Hansen et al(9), very low certainty evidence (downgraded twice for bias and twice for imprecision) compared MSI to interactive play (both in addition to the existing treatment regimen); physical function was assessed by measurement of passive ankle range of motion. The method for assessing passive ankle range of motion was not reported and data were not reported by treatment group. The investigators state there were "consistent improvements in ankle range of motion across the group" (presumably all study participants), but that there were "considerable improvements" in ankle dorsiflexion in 3 children receiving MSI.

Table 17: Outcome: Physical Function/Impairment - Cerebral Palsy

Outcome	Measurement	Measure priority	Treatment group	Results	Notes
Study: Loi et al(12); Buysse et al(8); Price et al(32)					
Physical function / impairment - randomised sample*	GAITRite® Electronic Walkway	1	MSI	Not reported	No data on gait parameters is reported for the randomised sample
			Waitlist		
Physical function / impairment - pooled sample**			MSI	Not reported	No data on gait parameters is reported for the pooled sample by intervention group
			Waitlist		
Study: Hansen et al(9)					
Physical function / impairment	Passive ankle range of motion	2	MSI	Not reported	Investigators state "We did not observe consistent improvements in ankle range of motion (ROM) across the group. However, 3 children showed considerable improvements in ankle dorsiflexion after myofascial structural integration treatment"
			Interactive Play		

*The randomised sample is comprised of 26 children receiving treatment (n=15) or waitlist (n=9). 13 children were initially randomised to treatment and 13 to waitlist, but 3 were moved from the waitlist group to the treatment group to accommodate their circumstances. Two children, one from each group, did not complete the treatment protocol and were not further analysed **the 'pooled' sample includes the randomised sample plus 5 children who received MSI (as a result of receipt of additional study funding) but were not randomised to it.

Outcome 6: Quality of life (rated 7 by the NTWC)

The included studies did not measure this outcome.

Outcome 7: Self-efficacy / self-perception (rated 4 by the NTWC)

The included studies did not measure this outcome.

F1.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

F2 – Population 2: Low Back Pain

F2.1 – Grouping 1: RCTs

Two RCTs were identified evaluating the effectiveness of Rolfing in populations with low back pain. (Table 18)

Table 18: Low Back Pain - Characteristics of Included Studies

Author Year Location	Study design	Follow up	Randomised total (each group)	Participants (health status / condition)	Age mean (SD) or range	Gender	Intervention type*	Intervention: dose, duration, frequency*	Comparator type*	Comparator: dose, duration, frequency*
Baur et al (7) Austria	Parallel 2 arm RCT	After a 3-week intervention period	36 (18 SI, 18 FF)	Participants had to suffer from non-specific back pain (measured on a VAS) at the outset of the investigation and agree to abstain from additional medical or therapeutic treatments during the study.	Mean 38, SD 9	53% female 47% male	Structural Integration	60 minutes, 1x/week, 3 weeks	Fascial Fitness	60 minutes, 1x/week, 3 weeks
Jacobson 2015(11) Jacobson 2014(10) USA	Parallel RCT 2-arm	20 weeks	46 (23 SI+OR, 23 OR alone)	18-65yo, male and female, CNSLBP ≥ 6 months duration, self-rated bothersomeness of back pain self-rated avg ≥3 on 11pt ordinal scale (0 none, 10 worst imaginable) preceding 6 months	SI+OR: mean 43, SD 13; OR alone: mean 46, SD 14	59% female 41% male	Structural Integration + outpatient rehabilitation (SI + OR)	10 sessions conforming to the Rolf Ten Series protocol; each session 1hr; 20 weeks allowed to complete the treatment.	Outpatient rehabilitation alone (OR alone)	OR varied by clinic; typical course: ½ to 1 hour session, 2x/week, for 4-6 weeks. Participants had 20 weeks to complete the OR treatment.

* Brief description; see expanded details in TIDieR Table. SD standard deviation; NR not reported; SI Structural Integration; FF Fascial Fitness; OR outpatient rehabilitation; CNSLBP chronic non-specific low back pain

TIDieR Table

The TIDIER Table was completed for the active interventions in both trials. (Table 19)

In the trial by Baur(7), Structural Integration consisted of 60-minute sessions, once a week for 3 weeks. Structural Integration was delivered by a Structural Integration practitioner. Comparator group participants received fascial fitness sessions, each lasting for 60 minutes, once per week and were guided by a fascial fitness coach. The materials required to deliver the interventions, whether any tailoring of the intervention to individual participants or modifications to the intervention at the study level occurred was not reported. Planned or actual assessment of fidelity of the interventions was not reported.

In the trial by Jacobson(11), the Structural Integration was delivered individually face-to-face in 10, 1-hour sessions by a therapist qualified in the delivery of Structural Integration and 20 weeks was allowed to receive all ten sessions. The participants in the comparator group, received outpatient rehabilitation which consisted of ½-1hr sessions twice weekly for 4-6 weeks, and included a combination of analgesic medication, joint manipulation, therapeutic exercise, cognitive behavioural therapy treatment and education. The mode of delivery of the components of outpatient rehabilitation are not reported. The materials required to deliver the interventions and whether any modifications to the intervention at the study level occurred was not reported.

Table 19: Low Back Pain - TIDieR Table

Author, year	Brief name	Why	What (materials)	What (procedures)	Who provided	How	Where	When and how much	Tailoring	Modification of intervention throughout trial	How well (planned)	How well (actual)
Baur(7)	2 active interventions A. Structural Integration (SI) B. Fascial Fitness (FF)	To improve function of the musculoskeletal system by creating an efficient, durable, and resistant fascial network	NR	A. SI – hand pressure on fascia and connective tissue B. FF – specific stretching exercises and springy movements	A. SI – "SI practitioner" not further described B. FF – "Trained FF coach" not further described	A. SI-Individual, face-to-face B. FF – Group, face-to-face	A. SI – not described B. FF – Gym	A. SI – 3 sessions of 60 minutes, 1 session per week B. FF – 3 sessions of 60 minutes, 1 session per week	NR	NR	NR	NR

Jacobson 2015(11) Jacobson 2014(10) USA	2 active interventions A. Structural Integration (SI) in addition to Outpatient Rehabilitation (OR) B. Outpatient rehabilitation alone	To reduce musculoskeletal pain through use of manipulative techniques to reduce rigidity of myofascial tissues and increase kinaesthetic awareness, and awareness exercises that improve the discrimination of more versus less stressful patterns of posture and movement	NR	SI. Rolf Ten Series OR. Varied by patient, but may have included: analgesics, anti-inflammatory medications, joint manipulation, therapeutic exercise, cognitive behavioural treatment and education.	SI. One of 5 qualified therapists, >10 years clinical practice of SI, membership of International Association of Structural Integrators OR. "Therapists" not further described	SI. Individual, face-to-face OR. Individual, face-to-face	SI. Therapists private practice offices OR. Outpatient rehabilitation clinics in the Boston area	SI. 10 sessions conforming to the Rolf Ten Series of approximately 60 minutes, over 20 weeks (patients chose scheduling intervals) OR. Varies by patient but typically 30-60 minute sessions, 2 sessions per week for 4-6 weeks	SI. Therapist tailored manipulation and awareness exercises to address individual variations in posture and movement OR. Not reported	SI. NR OR. NR	SI. Therapists had group discussions and reviews with senior SI practitioner prior to participant enrolment and monthly supervisory sessions during the treatment phase. Participant attendance at SI was determined via invoices submitted by therapists to the study administrator OR. Therapists provided treatment dates for each participant	SI. NR

NR Not reported; SI structural integration; OR outpatient rehabilitation

Effects of intervention (for all outcomes rated 4 or higher by the NTWC)

Outcome 1: Pain (rated 9 by the NTWC)

In the trial by Baur(7) very low certainty evidence (downgraded twice for bias and once for imprecision) found that pain (measured on a 0-10 cm Visual Analogue Scale (VAS)) improved over time in both structural integration (SI) and fascial fitness (FF) groups, but the change was statistically significant only for SI (p=0.011 for SI and p=0.098 for FF). No time by group interaction effect (p=0.832) was detected. There was insufficient information to definitively determine the method of analysis (intention-to-treat, modified-intention-to-treat, per protocol) used in this study but it was possibly a modified intention to treat analysis. Differences in scores between groups were not reported by study authors, and were therefore calculated. There was no difference between the SI and FF groups at baseline (p=0.49), or post-intervention (mean difference 0.20, 95% CI -0.75 to 1.15, p=0.68).

In the trial by Jacobson et al 2015(11)very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found greater within group change in median VAS pain bothersomeness and SF-36 bodily pain subscale in the structural integration +

outpatient rehabilitation group, than in outpatient rehabilitation alone group. Participants receiving outpatient rehabilitation alone did not change from baseline to follow up (VAS of pain bothersomeness 0 IQR -24.5 to 6.5; SF36 bodily pain subscale median change 0, IQR 0 to 11). However, no significant between group difference was identified (p=0.075). A significant difference in favour of the intervention group was found for SF-36 item bodily pain subscale, with a larger median score change in the structural integration + outpatient rehabilitation group (16) vs rehabilitation alone (0). (Table 19) Analyses were a modified intention to treat with data for participants lost to follow up analysed in the group to which participants were randomised and imputation of data using the last observation carried forward method.

Table 20: Outcome: Pain - Low Back Pain

Measurement	Measure priority	Treatment groups	Baseline mean (SD)	After treatment mean (SD)	Difference in scores between groups at baseline* MD (95% CI), p-value	Difference in scores between groups post-treatment* MD (95% CI), p-value	Notes
Study: Baur et al(7)							
Visual analogue scale (0-10cm) - perception of pain at the time of examination	1	SI	2.9 (1.6)	1.8 (1.4)	MD = 0.40 (95% CI -0.75 to 1.55) p=0.49	MD = 0.20 (95% CI -0.75 to 1.15) p=0.68	No significant difference between groups post-treatment (p=0.68) Authors provided pre-post values: SI (within group change from baseline): p=0.011 FF (within group change from baseline): p=0.098
		FF	2.5 (1.9)	1.6 (1.5)			

Measurement	Measure priority	Treatment groups	Baseline mean (SD)	After treatment mean (SD)	Median change scores (IQR)	Notes
Study: Jacobson et al 2015(11)						
Visual analogue scale (0–100mm) of bothersomeness of pain over previous week	3	SI+OR	46 (23)	NR	−26 (−31.5, −3.0)	On statistical advice, we did not calculate post-treatment mean difference between groups, as the data provided ill-supports this (baseline mean and SD values; median and IQR for change from baseline rather than for post-treatment values). The authors reported no significant between group difference (Wilcoxon rank sum 2-sided p=0.075)
		OR	50 (20)	NR	0 (−24.5, 6.5)	
Short form health survey (SF36) Bodily pain subscale	2	SI+OR	NR	NR	16 (7, 25)	Significant between group difference (Wilcoxon rank sum 2-sided p=0.009)
		OR	NR	NR	0 (0, 11)	

*The difference in scores between groups was calculated using a two-sample t-test. MD mean difference; SD standard deviation; SI Structural Integration; FF Fascial Fitness; OR Outpatient rehabilitation; NR Not reported; IQR Interquartile range; VAS visual analogue scale

Outcome 2: Physical functioning / disability (rated 8 by the NTWC)

In a trial by Jacobson 2015(11) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found a significant between group difference in favour of the intervention group (structural integration + outpatient rehabilitation group) for the Roland-Morris Disability Questionnaire (RMDQ) scores (p=0.007). Reported minimal clinically important differences for the RMDQ range from 2 to 5 points (33-35) and as a 30% reduction from baseline.(36) The median change from baseline (-2 points) with structural integration + outpatient rehabilitation is at the lowest level of difference that would be considered clinically relevant. However, no 95% confidence interval was reported and the lower limit of the inter-quartile range of difference included no between-group difference (-4.5 to -1.0). No between group difference was found for SF-36 item role physical subscale (p=0842), for the number of days/half days disabled over the past week (p=0.445), or for the physical function subscale (p=0.349). (Table 21)

Table 21: Outcome: Physical Functioning/Disability - Low Back Pain

Measurement	Measure priority	Treatment groups	Baseline mean (SD)	Follow-up (20 weeks)	Median change scores baseline to follow-up (IQR)	Notes
Study: Jacobson 2015(11)						
Roland-Morris Disability Questionnaire (RMDQ) (0–24)	1	SI + OR	7.7 (4.5)	NR	−2 (−4.5, −1)	Significant between group difference (Wilcoxon rank sum 2-sided p=0.007)
		OR	7.7 (5.3)	NR	0 (−2, 0)	
Sum of days and half days disabled over the past week	5	SI + OR	4.1 (4.6)	NR	−1.0 (−3.5, 0)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.445)
		OR	5.3 (4.5)	NR	0.0 (4.5, 0.5)	
SF36 Physical function subscale (0-100)	3	SI + OR	NR	NR	5 (0, 15)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.842)
		OR	NR	NR	5 (0, 13)	
SF36 Role physical subscale (0-100)	4	SI + OR	NR	NR	25 (0, 50)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.349)
		OR	NR	NR	0 (0, 25)	

NR Not reported; SI Structural Integration; OR Outpatient rehabilitation; IQR Interquartile range; SD standard deviation

Outcome 3: Overall symptom improvement (rated 7 by the NTWC)

The included studies did not measure this outcome.

Outcome 4: Quality of life (rated 7 by the NTWC)

In a trial by Jacobson et al 2015(11) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found no between group difference for median change in SF-36 item general health subscale (p=0.673) and SF-36 physical composite score (p=0.306). (Table 22)

Table 22: Outcome: Quality of life - Low back pain

Measurement	Measure priority	Treatment groups	Baseline	Follow-up (20 weeks)	Median change scores baseline to follow-up (IQR)	Notes
Study: (11)						
SF36 General health subscale (0-100)	1	SI + OR	NR	NR	0 (0, 8)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.673)
		OR	NR	NR	3 (0, 10)	
SF36 – Physical composite score	2	SI + OR	NR	NR	3 (1, 10)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.306)
		OR	NR	NR	3 (0, 9)	

NR Not reported; SI Structural Integration; OR Outpatient rehabilitation; IQR Interquartile range

Outcome 5: Work status (rated 6 by the NTWC)

The included studies did not measure this outcome.

Outcome 6: Mental Health (rated 5 by the NTWC)

In the trial by Jacobson et al 2015(11) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found no between group difference for median change in SF-36 mental composite score from baseline to follow-up (p=0.424), in the SF-36 item mental health subscale (p=0.305), or in the SF-36 item role emotional subscale (p=0.771). (Table 23)

Table 23: Outcome: Mental Health - Low back pain

Measurement	Measure priority	Treatment groups	Baseline	Follow-up (20 weeks)	Median change scores baseline to follow-up (IQR)	Notes
Study: Jacobson et al 2015(11)						
SF36 - Mental composite score	1	SI + OR	NR	NR	0 (−3, 3)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.424)
		OR	NR	NR	0 (−4, 1)	
SF36 Mental health subscale (0-100)	2	SI + OR	NR	NR	0 (−4, 8)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.305)
		OR	NR	NR	0 (−4, 4)	
SF36 Role emotional subscale (0-100)	3	SI + OR	NR	NR	0 (0, 0)	No significant between group difference (Wilcoxon rank sum 2-sided p=0.771)
		OR	NR	NR	0 (0, 0)	

NR Not reported; SI Structural Integration; OR Outpatient rehabilitation; IQR Interquartile range

Outcome 7: Social Function (rated 5 by the NTWC)

In the trial by Jacobson et al 2015(11) very low certainty evidence (downgraded once for bias, twice for imprecision and once for single study with investigator conflict) found a significant between group difference for SF-36 item social function subscale (p=0.041) with a median change score from baseline of 0 in both groups. (Table 24)

Table 24: Outcome: Social Function - Low back pain

Measurement	Measure priority	Treatment groups	Baseline	Follow-up (20 weeks)	Median change scores baseline to follow-up (IQR)	Notes
Study: (11)						
SF36 Social Function subscale (0-100)	1	SI + OR	NR	NR	0 (0, 16)	Significant between group difference (Wilcoxon rank sum 2-sided p=0.041)
		OR	NR	NR	0 (-13, 0)	

NR Not reported; SI Structural Integration; OR Outpatient rehabilitation; IQR Interquartile range

F2.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

F3 – Population 3: Fibromyalgia

F3.1 – Grouping 1: RCTs

One RCT was identified evaluating the effectiveness of Rolfing in a population with fibromyalgia. (Table 25)

Table 25: Fibromyalgia – Characteristics of Included studies

Author Year Location	Study design	Follow up	Randomised total (each group)	Participants (health status / condition)	Age mean (SD) or range	Gender	Intervention type*	Intervention: dose, duration, frequency*	Comparator type*	Comparator: dose, duration, frequency*
Stall 2015 (15) Brazil	Parallel RCT 3-arm	3 months	60 (20 ACP, 20 Rolfing + ACP, 20 Rolfing alone)	Over 18 years old, and diagnosed by a neurologist as having fibromyalgia syndrome, according to American College of Rheumatology 1990 criteria. Had not been treated with Rolfing or acupuncture for 1 year prior.	Mean 53 (10)	90% female 10% male	Rolfing All participants maintained previous routine ambulatory treatment (details NR)	10 weekly Rolfing sessions, 30 minutes each	Acupuncture All participants maintained previous routine ambulatory treatment (details NR)	10 weekly sessions, 20 minutes each

**brief description; see expanded details in TIDieR Table; SD standard deviation; RCT randomised controlled trial; ACP acupuncture; NR not reported

TIDieR Table

The TIDieR Table was completed for the active interventions, Rolfing and acupuncture. Rolfing and acupuncture were delivered in 10 weekly sessions of 30- and 20-minutes duration, respectively, on the same day. Acupuncture was provided by an acupuncturist physician, whilst Rolfing was delivered by a psychologist specialized in Rolfing. Materials used, where the intervention took place, tailoring, and modifications were not reported. (Table 26)

Table 26: Fibromyalgia - TIDieR Table

Author, year	Brief name	Why	What (materials)	What (procedures)	Who provided	How	Where	When and how much	Tailoring	Modification of intervention throughout trial	How well (planned)	How well (actual)
Stall 2015 **(15)**	3 active interventions A. Rolfing B. Acupuncture C. Rolfing + acupuncture	A. To improve musculoskeletal disorders via myofascial release and movement enhancement and orientation B. To treat pain and disease by the application of needles to specific body points located on channels or meridians through which qi, which regulates body functions, circulates C. As above	Not reported	A. Rolfing- Deep manual interventions (myofascial release) applied to elastic structure of the loose connective tissue (myofascial) and movement re-education B. Acupuncture – 18 muscular needles applied in variable depths until reaching qi without manipulation. Points and types of needles were B1 10, GV 21, SI 13, LI 17, Ki 25 and BI 36 C. As above	A. Rolfing- Psychologist specialized in Rolfing Structural Integration (not further described) B. Acupuncturist physician (not further described) C. As above	A. Rolfing - Individual, face-to-face B. Acupuncture – Individual, face-to-face C. As above	Not reported	A. Rolfing – 10 sessions of 30 minutes, 1 session per week B. Acupuncture – 10 sessions of 20 minutes duration, 1 session per week C. As above. A and B were delivered to each participant on the same day	Not reported	Not reported	Not reported	Not reported

Effects of intervention (for all outcomes rated 4 or higher by the NTWC)

Outcome 1: Pain (rated 9 by the NTWC)

Pain was measured using the Pain Verbal Numeric Analogue Scale with higher scores on the scale indicating worse pain. Differences between groups at follow-up were not reported by the study authors. Differences in scores between the two groups were calculated using a two-sample t-test. Very low certainty evidence (downgraded once for bias and twice for imprecision) found there was no difference between the Rolfing and Acupuncture groups in pain at baseline (p=0.91), at immediately post-intervention (mean difference -0.10 95%CI -1.58 to1.38, p=0.89) and at 3 months post-intervention (mean difference 0.25 95%CI -1.21 to 1.71, p=0.74). (Table 27)

Table 27: Outcome: Pain - Fibromyalgia

Treatment groups	Baseline Mean (SD)	Follow up (immediately post) Mean (SD)	Follow up (3 months post) Mean (SD)	Difference in scores between groups at baseline* MD (95% CI), p-value	Difference in scores between groups immediately post-treatment*	Difference in scores between groups at 3 months post-treatment*
Study: Stall 2015 (15)						
Group A: Acupuncture	8.85 (1.23)	4.65 (2.50)	5.47 (2.09)	MD 0.05 (95% CI -0.79 to 0.89) p=0.91	MD -0.10 (95% CI -1.58 to 1.38) p=0.89	MD 0.25 (95% CI -1.21 to 1.71) p=0.74
Group B: Rolfing	8.90 (1.48)	4.55 (2.26)	5.72 (2.59)			
Group C: Rolfing and acupuncture	8.80 (1.20)	3.45 (1.76)	4.85 (1.53)			

*The difference in scores between groups was calculated using a two-sample t-test. MD mean difference; SD standard deviation

Outcome 2: Physical function – global (rated 8 by the NTWC)

The included study did not measure this outcome.

Outcome 3: Fatigue (rated 7 by the NTWC)
The included study did not measure this outcome.

Outcome 4: Quality of life (rated 7 by the NTWC)
Quality of life was measured using the Fibromyalgia Impact Questionnaire (FIQ). The instrument consists of 10 items with a score of up to 10 on each item, so a maximum score is 100, with higher scores indicating a greater impact of fibromyalgia on functioning.

Very low certainty evidence (downgraded once for bias and twice for imprecision) found there was a reduction in FIQ scores from baseline to immediately post-treatment, and to 3-month follow-up. The trial reported the mean estimated difference, standard error and p-values for the differences between groups but the follow-up timepoint for measurement of the outcome is unclear. There were no significant differences between acupuncture and Rolfing groups (p=0.87), or between Rolfing and Rolfing + acupuncture groups (p=0.333). There was a significant mean estimated difference between acupuncture vs acupuncture plus Rolfing (p=0.025).

Differences in the FIQ scores between the two groups were calculated using a two-sample t-test. There were no significant differences between the Rolfing and acupuncture groups at baseline (p=0.30), at post-treatment (mean difference -7.11 95% CI -19.01 to 4.79, p=0.24), or at 3 months post-treatment (mean difference -3.24 95% CI -14.05 to 7.47, p=0.56). (Table 27)

Table 28: Outcome: Quality of life- Fibromyalgia

Treatment groups	Baseline Mean (SD)	Follow up (post) Mean (SD)	Follow up (3 months post) Mean (SD)	Estimates provided by the study authors	Difference between groups at baseline* MD (95% CI), p-value	Difference between groups at post-treatment* MD (95% CI), p-value	Difference between groups at 3 months post treatment* MD (95%CI), p-value
Study: Stall 2015(15)							
Group A: Acupuncture (FIQ scores)	75.96 (11.30)	46.13 (17.99)	47.40 (14.97)	ACP vs ROL: Mean estimated difference (SE, p value) = 4.23 (3.96, 0.870)	MD -4.53 (-13.12 to 4.06), p=0.30	MD -7.11 (95% CI -19.01 to 4.79), p=0.24	MD -3.24 (-14.05 to 7.57), p=0.56
Group B: Rolfing (FIQ scores)	71.43 (16.01)	39.02 (20.33)	44.16 (19.61)	ROL vs ACP + ROL: Mean estimated difference (SE, p value) = 6.33 (3.91, 0.333)			
Group C: Rolfing and acupuncture (FIQ scores)	69.65 (10.39)	29.97 (12.51)	37.83 (13.09)	ACP vs ACP + ROL: Mean estimated difference (SE, p value) = 10.56 (3.86, 0.025)			

*The difference in scores between groups was calculated using a two-sample t-test. MD mean difference; SD standard deviation; FIQ Fibromyalgia Impact Questionnaire

Outcome 5: Tenderness (rated 7 by the NTWC)

The included study did not measure this outcome.

Outcome 6: Sleep (rated 6 by the NTWC)

The included study did not measure this outcome.

Outcome 6: Stiffness (rated 5 by the NTWC)

The included study did not measure this outcome.

There was insufficient information to definitively determine the method of analysis (intention to treat, modified intention to treat, per protocol) used in this study but it was possibly an intention to treat analysis.

F3.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

F4 – Population 4: Hamstring tightness

F4.1 – Grouping 1: RCTs

One RCT was identified(14) evaluating the effectiveness of Rolfing Structural Integration in a population with hamstring tightness. (Table 29)

Table 29: Hamstring tightness – Characteristics of Included studies

Author Year Location	Study design	Follow up duration	No. participants randomised: total (each group)	Participants (health status / condition)	Age mean (SD) or range	Gender breakdown (% male, % female)	Intervention type*	Intervention: dose, duration, frequency*	Comparator type*	Intervention: dose, duration, frequency*
Shah 2013 (14) India	Parallel RCT 2-arm	NR #	40 (RSI group NR) ART group NR,	18-25yo, diagnosed with hamstring tightness by criteria of limited extension range (<60 degrees) determined by active knee extension method	18-25	NR	Rolfing Structural Integration	1 session of 45-60 minutes	Active Release Technique	1 session of 45-60 minutes

*Brief description; see expanded details in TIDieR Table # follow-up not reported but it is likely outcomes were measured immediately post intervention
SD standard deviation; RCT randomised controlled trial; NR not reported; RSI Rolfing Structural Integration; ART Active Release Technique

TIDieR Table

The TIDIER Table was completed for the two active interventions evaluated in Shah 2013(14), namely, Rolfing Structural Integration and Active Release Therapy. Participants randomised to the intervention group received one session of 45-60 minutes Rolfing Structural Integration with the aim to separate bound up fascia by deeply separating the fibres manually to allow efficient movement. The comparator group received one session of 45-60 minutes Active Release Technique (ART) developed by Dr. Michael Leahy. The technique involved moving the tissues from a shortened position to a lengthened position while keeping manual contact. The materials, location, tailoring, and modifications of the interventions were not reported. (Table 30)

Table 30: Hamstring tightness - TIDieR Table

Author, year	Brief name	Why	What (materials)	What (procedures)	Who provided	How	Where	When and how much	Tailoring	Modification of intervention throughout trial	How well (planned)	How well (actual)
Shah 2013 (14)	2 active interventions A. Rolfing Structural Integration (RSI) B. Active Release Technique (ART)	A. To allow fascia to operate in conjunction to the muscles in a normal fashion by separating bound up fascia with soft tissue manipulation B. To restore free and unimpeded motion of soft tissues, release trapped nerves, vascular and lymphatics, re-establish optimal resilience and function of soft tissue by locating and breaking down scar tissue and adhesions	Not reported	A. RSI – soft tissue manipulation B. ART - maintaining manual contact with the hamstring while taking the tissue from the shortened to lengthened position (a treatment pass)	A. RSI – Not reported B. ART – "Investigator" not further described	A. RSI – Individual, face-to-face B. ART - Individual, face-to-face	Not reported	A. RSI – Not clearly described but appears to be 1 session, 45-60 minutes B. ART – Not clearly described but appears to be 1 session involving 3 treatment passes	Not reported	None reported	Not reported	Not reported

RSI: Rolfing structural Integration; ART: active release technique

Effects of intervention (for all outcomes rated 4 or higher by the NTWC)

Outcome 1: Flexibility (rated 7 by the NTWC)

Flexibility: Sit and Reach distance test (measure priority 1)

Flexibility was measured using the sit and reach distance test, with an increased distance indicating improved flexibility. Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the sit and reach test distance increased in both groups from baseline to post treatment. Differences in scores between the two groups were calculated using a two-sample t-test. There was no difference between Rolfing and Active Release Technique at baseline (MD 1.87, 95% CI -2.60 to 6.34, p= 0.41) or post-treatment (MD -0.45, 95% CI -2.71 to 1.81), p= 0.70). Assuming there was an equal number of participants in both groups (this is not clear from the report), the difference in mean change from baseline between groups is -2.32, 95% CI -5.26 to 0.62, p=0.12). (Table 31)

Table 31: Outcome: Sit and Reach distance test - Hamstring tightness

Measurement	Treatment groups	Baseline mean centimetres (SD)	After treatment mean centimetres (SD)	Mean change from baseline in centimetres (SD) as provided by study authors	Difference between groups at baseline* MD (95% CI), p-value	Difference between groups at post-treatment* MD (95% CI), p-value	Notes
Study: Shah 2013(14)							
Sit and reach test	Rolfing Structural Integration	13.52 (5.86)	22.10 (3.24)	8.58 (4.01)	MD 1.87 (-2.60, 6.34), p= 0.41	MD -0.45 (-2.71, 1.81), p= 0.70	The study does not report the difference in mean change from baseline but reports a p value for the difference (in centimetres) in change scores of 0.162. The difference in mean change in centimetres between groups from baseline was calculated. Assuming there was an equal number of participants in both groups (this is not clear from the report), the difference in mean change is -2.32 (-5.26, 0.62), p=0.12). For Sit and reach test, value of t for Active Release Technique was 9.029 and for Rolfing: t= 7.946, p<0.001
	Active Release Technique.	11.65 (8.35)	22.55 (4.01)	10.9 (5.39)			

*The difference in scores between groups was calculated using a two-sample t-test. MD mean difference; SD standard deviation

Flexibility: Popliteal angle (measure priority 2)
Flexibility was also measured using the popliteal angle test with a decrease indicating a reduced popliteal angle and improved flexibility of hamstrings. (Table 32)

Popliteal angle (right side): Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the mean change in degrees between baseline measurement and immediately post treatment was 21 (SD 5.47) for the Rolfing Structural Integration group and 27.35 (SD 5.89) for the Active Release Technique group, with a significant reduction in right side popliteal angle in the Active Release Technique Group ($p<0.001$) and the Rolfing Structural Integration group ($p<0.001$). Differences in scores between the two groups were calculated using a two-sample t-test, assuming there was an equal number of participants in both groups (this is not clear from the report). There was no difference between Rolfing and Active Release Technique at baseline (MD -3.93, 95% CI -8.96 to 1.10, p= 0.13) or post-treatment (MD 2.42, 95% CI -0.22 to 5.06, p= 0.07). The difference in mean change from baseline between groups is -6.35, 95%CI -9.87 to -2.83), p=0.0004 in favour of Rolfing.

Popliteal angle (left side): Very low certainty evidence (downgraded twice for bias, once for indirectness and twice for imprecision) found the mean change in degrees between baseline measurement and immediately post treatment was 21.31 (SD 4.28) for the Rolfing Structural Integration group and 26.95 (SD 5.64) for the Active Release Technique group, with a significant reduction in left side popliteal angle in the Active Release Technique Group ($p<0.001$) and the Rolfing Structural Integration group ($p<0.001$). Differences in scores between the two groups were calculated using a two-sample t-test, assuming there was an equal number of participants in both groups (this is not clear from the report). There was no difference between Rolfing and Active Release Technique at baseline (MD -1.87, 95% CI -7.60 to 3.86, p= 0.52). However, post-treatment Active Release technique was better than Rolfing (MD 3.77, 95% CI 0.25 to 7.29, p= 0.07). The difference in mean change from baseline is -5.64, 95%CI -8.74 to -2.54), p=0.0004 in favour of Rolfing.

There was insufficient information to determine the method of analysis (intention to treat, modified intention to treat, per protocol) used in this study.

Table 32: Outcome: Popliteal angle - Hamstring tightness

Measurement	Treatment groups	Baseline mean degrees (SD)	After treatment mean degrees (SD)	Mean change from baseline in degrees (SD) as provided by study authors	Difference between groups at baseline MD (95% CI), p-value*	Difference between groups at post-treatment MD (95% CI), p-value*	Notes
Shah 2013 (14)							
Popliteal angle (Right)	Rolfing Structural Integration	29.47 (6.45)	8.47 (4.47)	21.00 (5.47)	MD -3.93 (-8.96, 1.10), p= 0.13	MD 2.42 (-0.22, 5.06), p= 0.07	For Popliteal angle within group comparison, right side (reported by authors): Paired t=20.744, p<0.001 for ART Paired t=16.712, p<0.001 for Rolfing.
	Active Release Technique	33.40 (9.49)	6.05 (4.04)	27.35 (5.89)			
Popliteal angle (Left)	Rolfing Structural Integration	30.73 (8.05)	9.42 (6.07)	21.31 (4.28)	MD -1.87 (-7.60, 3.86), p= 0.52	MD 3.77 (0.25, 7.29), p= 0.04	For popliteal angle within group comparison, left side, Paired t=21.359, p<0.001 for ART Paired t=21.696, p<0.001 for Rolfing
	Active Release Technique	32.60 (10.30)	5.65 (5.25)	26.95 (5.64)			

*The difference in scores between groups was calculated using a two-sample t-test. The calculations assume there was an equal number of participants in both groups (the number randomised to each group is not stated in the report) MD mean difference; SD standard deviation

F4.2 – Grouping 2: NRSI

No non-randomised studies of interventions met eligibility for inclusion in this group.

Appendix G – Differences between protocol and review

G1 – Methods not implemented

Due to inclusion of only a small number of studies of similar design across a range of conditions, several planned methods could not be implemented. Planned methods for assessing bias in non-randomised studies, meta-analyses, and assessment of certainty of non-randomised studies were not implemented as no non-randomised studies were identified that met the review eligibility criteria. As only 6 randomised trials were identified for inclusion in the review and these trials covered 4 different conditions and assessed different comparators, planned methods of meta-analysis, assessment of heterogeneity, subgroup analysis and sensitivity analysis could not be conducted.

G2 – Changes from protocol

The protocol stated that randomised and quasi-randomised controlled trials would be assessed for risk of bias with the Cochrane risk-of-bias 2 tool. As ROB-2 specifies assessment should be conducted at the level of the result reported, risk of bias was assessed for each result (for the outcome domains rated as 4 or higher by the NTWC) reported in each of the included studies. It was stated in the protocol that when reporting the results of studies in text, the studies would be ordered by design and risk of bias, with reporting limited to studies judged to be at low or unclear risk of bias. While results for all included trials were at high risk of bias, to facilitate reading and interpretation of tabulated trial results, all results reported in the trials (for the outcome domains rated as 4 or higher by the NTWC) were also described narratively.

The protocol outlined an approach to screening and selecting studies published in languages other than English. This approach specified that where there was uncertainty in the eligibility of non-English articles the full text report would not be translated. Given the paucity of evidence for Rolfing, when eligibility of non-English articles could not be determined with certainty based on the title and abstract, the full text was obtained if possible and translated using Google translate. Eligibility was assessed on this information. This approach was adopted for 4 articles. One of these articles(31) was excluded because no results were reported in the full text report and could not be obtained from the author. Another was excluded because it was a discussion of the principles and practice of Rolfing that did not meet the eligibility criteria for study design,(37) For the remaining two studies (with titles only) an abstract of full-text report could not be obtained against which eligibility could be assessed so these studies were classified as ‘Awaiting classification’ as per the protocol and the potential risk of language bias and implications of this discussed in the ‘Overall completeness and applicability of evidence’ section of the main report and the executive summary.

Appendix H - How comments from methodological review were addressed

Methodological review (or peer review) was conducted to appraise the methodological quality and assess the appropriateness of reporting for this systematic review (including appendices).

For reporting, the methodological review assessed the systematic review against the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) Checklist (2020) and where applicable, the MECIR (Methodological Expectations of Cochrane Intervention Reviews) manual.

The ROBIS (Risk of Bias in Systematic Reviews) tool was used to assess the methodological quality of the systematic review, to ensure it was designed and conducted in accordance with:

- NHMRC's Developing your Guideline module in NHMRC's Guidelines for Guidelines Handbook
- Cochrane Handbook for Systematic Reviews of Interventions (updated 2022)
- GRADE guidance and GRADE working group criteria for determining whether the GRADE approach was used (GRADE handbook).

The ROBIS assessment included specification and application of criteria for considering studies for the review and synthesis, search methods, data extraction and analysis, assessment of risk of bias of studies, assessment of the certainty of evidence using GRADE, and the interpretation and summary of findings.

The systematic review (including appendices) has been updated to reflect the amendments suggested by methodological review and NHMRC's Natural Therapies Working Committee, where appropriate. In summary, updates included additional information and/ or clarification of the Plain Language Summary, Executive Summary, Results sections, and Appendices, for example:

- the interpretation of the direction of results for very low certainty evidence was removed and evidence statements updated accordingly
- information on minimal important difference (MID) was added to the Summary of Findings tables, where appropriate and explained in Appendix B3.1.2
- the basis for GRADE judgements were elaborated on for transparency
- effect estimates originally omitted for the outcome 'perception of pain' for the low back pain population were calculated and included.

Changes made to the report (and appendices) resulting from methodological review, did not impact the overall conclusions of the review.

A detailed record of responses to all comments indicating changes that were made, was provided to the NHMRC together with the amended Report and Appendices documents for transparency.

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