

## PROSPERO International prospective register of systematic reviews

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### Effects of nonsurgical management for patients with idiopathic scoliosis: an overview of systematic reviews

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#### Review question(s)

To summarise evidence for the effectiveness of conservative therapies and screening for idiopathic scoliosis.

To assess the quality of published systematic reviews of these interventions.

To find which systematic reviews of the same interventions formulate more reliable conclusions.

#### Searches

Databases searched:

MEDLINE using PubMed, SportsDiscus using EBSCOhost Web, and Web of Science, Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effectiveness (DARE), NHS Economic Evaluation Database (NHSEED), HTA Database, Physiotherapy Evidence Database (PEDro), the Campbell Collaboration Library of Systematic Reviews (the Campbell Library), the Joanna Briggs Institute and the TRIP database, directly at their sites.

Searching for protocols and registered titles:

PROSPERO, Cochrane Library, Campbell Library, Joanna Briggs Institute and the Systematic Reviews journal are searched for relevant registered protocols or titles.

Handsearching, reference checking, and other:

We handsearched reference lists of relevant papers. The National Guideline Clearinghouse database is searched and, if relevant clinical practice guidelines are found, their reference lists are handsearched.

Restrictions:

Only systematic reviews published in full texts are included for analysis. We do not contact potential authors of ongoing unpublished and not registered systematic reviews. Titles and abstracts published in English language are considered. If found, full texts of articles in a different language will be translated. Databases will be searched from inception up to December 1, 2012, with subsequent updating searches. Two searchers independently conduct the database search, and the selection of included titles, abstracts, and, if necessary, full text articles. If needed, decisions upon inclusion or exclusion of selected papers will be reached by consensus.

#### Link to search strategy

[http://www.crd.york.ac.uk/PROSPEROFILES/3538\\_STRATEGY\\_20140605.pdf](http://www.crd.york.ac.uk/PROSPEROFILES/3538_STRATEGY_20140605.pdf)

#### Types of study to be included

Inclusion criteria:

Included are papers meeting main criteria for a systematic review: clear inclusion/exclusion criteria, an explicit search

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strategy, and systematic analysis of included studies. Both quantitative and qualitative (without a meta-analysis) systematic reviews of any types of primary experimental or observational studies are included.

Exclusion criteria:

Narrative and other types of non-systematic reviews (e.g. critical reviews, overviews, state-of-the-art reviews), clinical practice guidelines, evidence summaries, critically appraised topics, clinical paths, consumer information sheets, best practice information sheets, technical reports, and other evidence-based pieces, are excluded.

### **Condition or domain being studied**

Idiopathic scoliosis.

Scoliosis is the most prevalent orthopaedic condition affecting children. In its most frequent type, the adolescent idiopathic scoliosis, is diagnosed in about 80% of cases of this condition in patients of pubertal age, mostly in girls. The risk of progression depends on skeletal maturity, curve size, and gender. Idiopathic scoliosis may have lasting consequences and can be accompanied with pulmonary complications, pain symptoms, difficulties in participation, and psychological disorders. Expert opinions and study findings regarding therapeutic interventions and screening are inconsistent.

### **Participants/ population**

Reviews regarding adolescents with idiopathic scoliosis are eligible.

### **Intervention(s), exposure(s)**

Inclusion criteria:

Systematic reviews of screening for scoliosis, and of conservative treatments (bracing, exercise therapy, observation, and any other non-operative approaches) are eligible.

Exclusion criteria:

Excluded are systematic reviews of surgical treatments and of diagnostic approaches (e.g. x-ray) other than those used in screening procedures. Systematic reviews regarding mixed populations (e.g. of low back pain in various conditions, including idiopathic scoliosis) are also ineligible.

### **Comparator(s)/ control**

There is no restriction for control interventions. It may be no intervention or other type(s) of intervention(s) (e.g. different types of braces, exercise treatments, or electrical stimulation), depending on what control interventions were considered in included systematic reviews.

### **Context**

We do not restrict our eligibility criteria to any context. We include studies regarding interventions delivered outside the health care setting (e.g. brace treatment), and in public and private practice (e.g. inpatient and outpatient physiotherapy or rehabilitation programmes), and school screening.

### **Outcome(s)**

#### **Primary outcomes**

Any outcomes related to objective functioning and subjective wellbeing regarding screening and treatment effectiveness, e.g. curve progression, trunk rotation, physical functioning, body image, self-acceptance, and health-related quality of life, are considered.

Both short-term and long-term outcomes are considered, depending on the characteristics of individual systematic reviews.

#### **Secondary outcomes**

There is no restriction for secondary outcomes.

### **Data extraction, (selection and coding)**

We will independently carry out study inclusion and coding decisions. If present, uncertainties are resolved by discussion and consensus. This can be done at the initial step of eligibility screening based on titles and abstracts, but also, if necessary, by full text analyses. Both searchers follow explicitly the study protocol and base the selection process on a search strategy formulated with a collaborating experienced biomedical librarian.

### **Risk of bias (quality) assessment**

We will independently assess the quality of included studies with the AMSTAR tool for quality assessment of systematic reviews. Inter-rater reliability will be assessed with kappa and, if required, a collaborator will be invited to conduct further appraisals.

### **Strategy for data synthesis**

It is not planned to subject the data to meta-analysis. A descriptive synthesis of assessed individual systematic reviews is planned. Excluded papers will be listed, with reasons for exclusion stated.

### **Analysis of subgroups or subsets**

None planned.

### **Contact details for further information**

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### **Organisational affiliation of the review**

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### **Review team**

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Dr Josette Bettany-Saltikov, School of Health and Social Care, University of Teesside, Middlesbrough, UK

### **Collaborators**

Dr Igor Cieslinski, Warsaw University School of Physical Education, Faculty of Physical Education and Sport in Biala Podlaska, Poland

### **Details of any existing review of the same topic by the same authors**

This is a new review.

### **Anticipated or actual start date**

15 October 2012

**Anticipated completion date**

10 July 2014

**Funding sources/sponsors**

None.

**Conflicts of interest**

None known

**Language**

English

**Country**

Poland

**Subject index terms status**

Subject indexing assigned by CRD

**Subject index terms**

Humans; Orthopedic Procedures; Quality of Life; Scoliosis

**Any other information**

Part of the review, regarding screening, has been published. The second report, regarding treatment interventions, has been completed, but not published

**Stage of review**

Completed but not published

**Date of registration in PROSPERO**

02 January 2013

**Date of publication of this revision**

07 July 2014

**Details of final report/publication(s)**

<http://link.springer.com/article/10.1007%2Fs00586-014-3307-x>

**Stage of review at time of this submission**

	<b>Started</b>	<b>Completed</b>
Preliminary searches	No	Yes
Piloting of the study selection process	No	Yes
Formal screening of search results against eligibility criteria	No	Yes
Data extraction	No	Yes
Risk of bias (quality) assessment	No	Yes
Data analysis	No	Yes

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**International prospective register of systematic reviews**

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