

Appendix 1. Search strategy and key words

All search was done from the inception to 28 September 2021.

To identify relevant outcome, we included the term: ‘Scoliosis’. To identify relevant sports, we included the terms: ‘Sports’ or ‘Sport’ or ‘Athletics’ or ‘Athletic’ or ‘Athletic performance’ or ‘Physical fitness’ or ‘Youth Sports’ or ‘Racquet Sports’ or ‘Water sports’ or ‘Team sports’. To identify relevant populations, we included the terms: ‘Athlete’ or ‘Athletes’ or ‘Professional athlete’ or ‘Professional athletes’ or ‘Elite athletes’ or ‘Elite athlete’ or ‘College athletes’ or ‘College athlete’. Also, to identify relevant populations, we included the terms: ‘Physical Activities’ or ‘Physical Activity’ or ‘Physical Exercise’ or ‘Physical Exercises’.

No language or time limitations were applied.

These search filters were used to extract related studies on ProQuest; audio and video content, magazines, trade journals, reports, newspapers, and other sources were excluded.

“The preliminary search recognized 90,670 records for screening (duplicates were manually deleted during the initial search and were not recorded).”

“Pubmed (2,004) /ScienceDirect (19,127) ProQuest (5163) Scopus (686) /Sage journals (1,511) Springer (37,939) /Google Scholar (24,240)”

Search Strategy:

Pubmed

1. ‘Scoliosis’ AND (‘Sports’ OR ‘Sport’ OR ‘Athletics’ OR ‘Athletic’ OR ‘Athletic performance’ OR ‘Physical fitness’ OR ‘Youth Sports’ OR ‘Racquet Sports’ OR ‘Water sports’ OR ‘Team sports’) AND (‘Athlete’ OR ‘Athletes’ OR ‘Professional athlete’ OR ‘Professional athletes’ OR ‘Elite athletes’ OR ‘Elite athlete’ OR ‘College athletes’ OR ‘College athlete’)
2. ‘Scoliosis’ AND (‘Sports’ OR ‘Sport’ OR ‘Athletics’ OR ‘Athletic’ OR ‘Athletic performance’ OR ‘Physical fitness’ OR ‘Youth Sports’ OR ‘Racquet Sports’ OR ‘Water sports’ OR ‘Team sports’) AND (‘Physical Activities’ OR ‘Physical Activity’ OR ‘Physical Exercise’ OR ‘Physical Exercises’)

3. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete' AND 'Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

Scopus

1. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports')
2. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
3. 'Scoliosis' AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')
4. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports') AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')
5. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports') AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
6. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete' AND 'Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

ScienceDirect

1. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports')
2. 'Scoliosis' AND ('Water sports' OR 'Team sports')
3. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
4. 'Scoliosis' AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

ProQuest:

1. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports') AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')

2. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports') AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')
3. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete' AND 'Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

Sage journals:

1. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports')
2. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
3. 'Scoliosis' AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

Springer

1. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports')
2. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
3. 'Scoliosis' AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')

Google Scholar:

1. 'Scoliosis' AND ('Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')
2. 'Scoliosis' AND ('Sports' OR 'Sport' OR 'Athletics' OR 'Athletic' OR 'Athletic performance' OR 'Physical fitness' OR 'Youth Sports' OR 'Racquet Sports' OR 'Water sports' OR 'Team sports') AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete')
3. 'Scoliosis' AND ('Athlete' OR 'Athletes' OR 'Professional athlete' OR 'Professional athletes' OR 'Elite athletes' OR 'Elite athlete' OR 'College athletes' OR 'College athlete' AND 'Physical Activities' OR 'Physical Activity' OR 'Physical Exercise' OR 'Physical Exercises')