

## Evaluation of spin in the abstracts of systematic reviews and meta-analyses covering treatments for Achilles tendon ruptures

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### Abstract:

**Introduction:** Approximately 18 in every 100,000 people have experienced a ruptured Achilles tendon.

Despite the prevalence of this condition, treatment options remain up for debate. Thus, the objective of this study was to evaluate the use of spin — reporting practices that may exaggerate benefit or minimize harm — within the abstracts of systematic reviews related Achilles tendon repair. We also evaluated whether particular study characteristics were associated with spin.

**Methods:** We developed a search strategy for Ovid MEDLINE and Ovid Embase for systematic reviews focused on achilles tendon treatment. Following title and abstract screening of these search returns, these reviews were evaluated for spin (according to a previously developed classification scheme) and received AMSTAR-2 appraisals by 2 investigators in a masked, duplicate manner. Study characteristics for each review were also extracted in duplicate.

**Results:** Our systematic search returned 251 articles of which 43 systematic reviews and meta-analyses were eligible for data extraction. We found that 51.2% of our included studies contained spin (22/43).

Spin type 3 was the most common type, occurring in 53.5 % (23/43) of abstracts. Spin types 2, 7, 8 and 9 did not occur in any abstract. AMSTAR-2 appraised 32.6% (14/43) of studies as “moderate” quality,

32.6% (14/43) were of “low” quality, and 34.9% (15/43) were rated as “critically low” quality. No systematic reviews were rated as “high” quality. There was no significant association between the presence of spin and the following study characteristics: intervention type, article mentioning PRISMA adherence, journal recommending PRISMA adherence, funding sources, journal five-year impact factor, year the review was received for publication, or AMSTAR-2 critical appraisals.

**Conclusion:** Spin was present in the abstracts of systematic reviews and meta-analysis covering Achilles tendon tear treatment. Steps should be taken to improve the reporting quality of abstracts on Achilles tendon treatment as well as other common orthopaedic conditions.

**Conflicts of Interest:**

None