Kinesio taping for sports injuries

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The authors determined thresholds for clinical benefit on each outcome based on existing literature. Where no previously validated thresholds for an outcome measure existed, one-fifth of the baseline SD of the measure was used as the threshold. If no baseline data were provided in the included studies, a threshold for clinical benefit was agreed on by the authors. The authors then used these thresholds to infer the likelihood that each effect was beneficial, trivial or substantially harmful.

RESULTS
Ten controlled studies were included in the review, with sample sizes ranging from 14 to 65. Only two randomised studies blinded participants as well as assessors. Three of the ten studies included patients with a musculoskeletal condition, two of which were sports-related. Seven studies that recruited healthy individuals were included on the basis that kinesio taping may have a preventative action, however none of these studies provided a direct measure of injury prevention.

Kinesio taping was compared with sham treatment for pain relief in one study (n=41), no clinically beneficial results were found. There were inconsistent results for ROM outcomes, with small clinically beneficial results seen in two studies, but trivial results in two other studies. In one study of 21 healthy athletes, there was a likely beneficial intervention effect for proprioception regarding grip force sense error, but no positive impact on ankle proprioception.

While intervention appeared to be beneficial for a number of outcomes relating to strength, there were also numerous trivial findings and the majority of results were non-significant. These studies were also conducted mostly in healthy populations. Reported effects on muscle activity included a mix of substantial, trivial, unclear and non-significant findings.

All the results and subsequent conclusions of the review are based only on comparisons that showed a significant difference between treatment and comparison groups in the included studies.

LIMITATIONS
The review has several flaws, the most serious of which is selective reporting of outcomes. As only positive (significant) results are reported it is not possible to assess the entirety of the evidence for effectiveness of kinesio taping.

In addition, while the authors report to have followed the methodological guidelines of the Cochrane Collaboration this does not appear to be the case. Recommended methods of presenting between group comparisons (eg, mean differences), extraction of all relevant data, complete assessment of risk of bias and adoption of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach to describe quality of the evidence would make interpretation more straightforward.

CLINICAL IMPLICATIONS
Kinesio taping does not appear to have a beneficial effect on pain when compared with sham treatment. Based mostly on studies of healthy populations, there are inconsistent results for other outcome measures such as ROM, strength, muscle activity and proprioception. This systematic review has serious methodological limitations that compromise the reliability of the conclusions. Clinicians should look to other sources of information in determining whether or not to apply this intervention. At present there appears to be little high quality evidence on which to assess the effectiveness of kinesio taping, it is hoped that future research will clarify the situation.
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REFERENCES