Table des matières

Health and Performance of the Athlete

Santé et performance du sportif : évaluation de l'acupuncture

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Chaabna 2026 (pain management in athletes)

Chaabna K, Jithesh A, Cheema J, Aboughanem J, Mamtani R. Western medical acupuncture techniques for pain management in athletes: a systematic review and meta-analysis. Front Med (Lausanne). 2026;13:1737602. https://doi.org/10.3389/fmed.2026.1737602

Background	Musculoskeletal pain can undermine athletic performance. Medical procedures that fall under Western medical acupuncture (WMA) such as dry needling, grounded in conventional scientific principles, represent a promising adjunct to conventional pain treatments. However, its effectiveness among athletes remains unclear. To address this gap, we conducted a systematic review and meta-analysis to assess whether WMA reduces pain in athletic populations.
Methods	We searched PubMed, Web of Science, SPORTDiscus, Allied and Complementary Medicine databases, and Google Scholar (latest search: July 2023). We included primary studies that used WMA techniques, including dry needling, manual acupuncture, and percutaneous needle electrolysis, applied based on biomedical principles. Eligible studies diagnosed pain using conventional medical criteria or validated tools and selected evidence-based acupoints based on peer-reviewed research and/or conventional anatomy and physiology, without reference to traditional Asian acupuncture principles. Random-effects meta-analyses were conducted to assess pre-post and between-group changes in pain.
Results	We included 8 studies with overall good internal validity. Publication biases and heterogeneity between studies were identified. In pre-post within-group analyses, WMA techniques alone significantly reduced mean pain scores (number of studies (n) = 5, p-value = 0.002) whereas WMA techniques combined with exercise and/or physiotherapy showed a nonsignificant reduction (n = 3, p-value = 0.206). In between-group comparisons, significant decreases in mean pain scores were observed for both WMA techniques alone (n = 1, p-value = 0.0003) and WMA techniques combined with exercise and/or physiotherapy (n = 3, p-value = 0.011). The certainty of evidence was rated low for WMA techniques alone and moderate for WMA techniques combined with physiotherapy and/or exercise.
Conclusion	Our findings suggest that WMA techniques alone or combined with physiotherapy and/or exercise may reduce pain among athletes. However, the current evidence base remains preliminary, and additional well-controlled trials are required to establish its efficacy with greater confidence.

1.1.2. Urroz 2013 ☆

Urroz P, Colagiuri B, Smith CA, Cheema BS. Effect of acute acupuncture treatment on exercise performance and postexercise recovery: a systematic review. J Altern Complement Med. 2013; 19(1): 9-16. [152832].

Background	Preliminary evidence suggests that acupuncture applied proximally during a single bout of exercise can enhance exercise performance and/or expedite postexercise recovery. The purpose of this investigation was to review trials, systematically and critically, that have investigated such hypotheses and delineate areas for future research.
Method	A systematic review using computerized databases was performed.
Results	**Four trials were found**: Three involved within-subjects designs and one used a parallel group design. Few participants were enrolled (n=10-20). Fourteen acupuncture sites were used across the four trials: DU 20, LI 15, LI 13, PC 6, ST 36, SP 6, PC 5, LU 7, LI 4, GB 37, GB 39, GB 34, and LI 11, and LR 3. PC 6, and ST 36 were the most commonly used sites. Three trials evaluated the effect of acupuncture on exercise performance. One of these trials noted that electroacupuncture stimulation of either PC 5 and PC 6 or LU 7 and LI4 significantly increased peak power output, blood pressure, and rate pressure product (RPP) versus control. However, two trials documented no effect of acupuncture on exercise performance using point combinations of either DU 20, LI 15, LI 13, PC 6, ST 36, and SP 6 or DU 20, ST 36, GB 34, LI 11, LR 3. One trial evaluated the effect of acupuncture on postexercise recovery and found that heart rate, oxygen consumption, and blood lactate were significantly reduced secondary to acupuncturing of PC 6 and ST 36 versus control and placebo conditions at 30 or 60 minutes postexercise.
Conclusions	**There is preliminary support for the use of acupuncture as a means to enhance exercise performance and postexercise recovery**, but many limitations exist within this body of literature. Adequately powered, RCTs with thorough and standardized reporting of research methods (e.g., acupuncture and exercise interventions) and results are required to determine more adequately the effect of acupuncture methods on exercise performance and postexercise recovery. Future investigations should involve appropriate placebo methods and blinding of both participants and investigators

1.2. Special Acupuncture Techniques

1.2.1. Zhong 2016 (moxibustion) ☆

Zhong Da-Ke, Tang Dan, Xue Li, Wen Jin, Li You-Ping. Effectiveness of moxibustion for exercise-induced fatigue: a systematic review for randomized controlled trials. Chinese Journal of Integrative Medicine. 2016;2:130-140. [186958].

Objective	To review and assess the effect of single moxibustion for exercise-induced fatigue (EIF).
Methods	Computer-search for 8 medical databases and 5 clinical trial registries were conducted for randomized controlled trials (RCTs), added with hand-search for 10 Chinese acupuncture-moxibustion journals and additional references. Data from included RCTs were pooled by RevMan5. 1. Methodology quality of RCTs was judged by Cochrane Collaboration assessment tool while quality of primary outcomes was evaluated by GRADE3. 2.

Results	**Five RCTs were finally included**, all reported in small sample size with high risk of bias. Comparisons on single moxibustion and rest relief (without treatment) were studied. Six outcomes were reported, all favored moxibustion to rest relief for EIF. Primary outcomes showed as rating of perceived exertion (RPE) with mean difference (MD)=-0. 49, 95%confidence interval (CI) [-0. 80, -0. 19], 800-m race performance with MD=-2. 21, 95%CI [-3. 57, -0. 85], and Harvard Step Index (HSI) with MD=14. 75, 95%CI [8. 35, 21. 15]. Moreover, all primary outcomes as RPE, 800-m race performance and HSI were rated low quality.
Conclusions	**Single moxibustion might be considered effective for EIF.** However, due to small samples of included RCTs, high risk of bias among studies and poor quality of primary outcomes and subjects restricted to Chinese athletes only, these results present limitation, and should be taken with caution for practice. More large-size studies with rigorous design are warranted to further test effectiveness of moxibustion for EIF.

1.2.2. Bridgett 2017 (cupping)

Bridgett R, Klose P, Duffield R, Mydock S, Lauche R. Effects of Cupping Therapy in Amateur and Professional Athletes: Systematic Review of Randomized Controlled Trials. J Altern Complement Med. 2018;24(3):208-219. [145470].

Objective	Despite the recent re-emergence of the process of cupping by athletes, supporting evidence for its efficacy and safety remains scarce. This systematic review aims to summarize the evidence of clinical trials on cupping for athletes.
Methods	SCOPUS, Cochrane Library, PubMed, AMED, and CNKI databases were searched from their inception to December 10, 2016. Randomized controlled trials on cupping therapy with no restriction regarding the technique, or cointerventions, were included, if they measured the effects of cupping compared with any other intervention on health and performance outcomes in professionals, semi-professionals, and leisure athletes. Data extraction and risk of bias assessment using the Cochrane Risk of Bias Tool were conducted independently by two pairs of reviewers.
Results	Eleven trials with n = 498 participants from China, the United States, Greece, Iran, and the United Arab Emirates were included, reporting effects on different populations, including soccer, football, and handball players, swimmers, gymnasts, and track and field athletes of both amateur and professional nature. Cupping was applied between 1 and 20 times, in daily or weekly intervals, alone or in combination with, for example, acupuncture. Outcomes varied greatly from symptom intensity, recovery measures, functional measures, serum markers, and experimental outcomes. Cupping was reported as beneficial for perceptions of pain and disability, increased range of motion, and reductions in creatine kinase when compared to mostly untreated control groups. The majority of trials had an unclear or high risk of bias. None of the studies reported safety.
Conclusions	No explicit recommendation for or against the use of cupping for athletes can be made. More studies are necessary for conclusive judgment on the efficacy and safety of cupping in athletes.