

# Infographic. International Olympic Committee consensus statement on pain management in athletes: non-pharmacological strategies

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## IOC CONSENSUS STATEMENT ON PAIN MANAGEMENT IN ELITE ATHLETES

### NON-PHARMACOLOGICAL STRATEGIES

Reference: B. Hainline et al. BJSM 2017

Pain management depends on identifying contributory factors from biological, psychosocial and contextual domains and addressing them through various evidence-based techniques


#### MODALITIES & MASSAGE



- 1** Physical therapy techniques: no clear benefit for most of them
- 2** Low-level laser therapy: possibly beneficial (tendonopathy & acute muscle recovery)
- 3** Cryotherapy: little evidence from prospective studies
- 4** Ultrasound therapy: unclear benefit
- 5** Electrical stimulation, massage therapy, myofascial trigger point treatments and acupuncture: poor reliability and consistent efficacy for relief of pain resulting from musculoskeletal injury


The effects of modalities may be manifest in an individually specific way, especially as it pertains to the skill of the treating clinician

#### MOVEMENT, STRENGTH & CONDITIONING




Exercise-based approaches are effective for managing pain in individuals with chronic painful conditions and can also improve patient self-efficacy for managing pain and fear of (re)injury

#### SUPPLEMENTATION




Persistent pain is influenced by any proinflammatory load, which makes nutrition possibly relevant to managing pain in athletes. However, studies demonstrating benefit from nutritional supplements are not methodologically sound and have unclear relevance to elite athletes

#### PSYCHOSOCIAL INTERVENTIONS (with possible efficacy)




- 1** Skills training in goal setting, imagery, relaxation & positive self-statements
- 2** Cognitive restructuring (identifying and challenging negatively biased appraisals) & developing plans for maintaining treatment gains and coping with setbacks and pain flare-ups
- 3** Psychologically informed physical therapy, which incorporates cognitive and behavioural principles and strategies (eg, techniques to reduce fear-avoidance, use of graded activity and exposure techniques), and education about pain during physical rehabilitation, is a promising approach

#### SLEEP




Pain disturbs sleep, and poor sleep quality or duration increases pain levels and decreases pain thresholds. Psychological strategies to address sleep disorders include cognitive-based therapy, self-hypnosis & mindfulness-based stress reduction

#### SURGERY



Surgery should not be performed to treat chronic pain simply because all other interventions have failed but should rather be used when a structural problem associated with the pain has been identified

Designed by @YLMsportScience



Pain and injury are not synonymous. Pain can occur without sport injury, and sport injury may not necessarily manifest with pain. It is important to understand the basis of pain in elite athletes and then to begin non-pharmacological treatment based on the underlying aetiology. Pharmacological strategies can complement non-pharmacological management but should not be used as stand-alone treatment. Multidisciplinary pain management offers the best chance of addressing any combination of biomechanical maladaptations, aberrant neurophysiology and psychosocial influencers of pain.

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## **Correction: *Infographic. International Olympic Committee consensus statement on pain management in athletes: non-pharmacological strategies***

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Hainline B, Derman W, Vernec A *et al.* Infographic. International Olympic Committee consensus statement on pain management in athletes: non-pharmacological strategies. *Br J Sports Med* 2020;53:785–6.

The author David Siebert was mistakenly added to this article in place of Christian Siebert. The correct affiliation for Christian Siebert should be: Hanover Medical School, Hanover, Germany.

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