

# SOOTHING THE SORENESS

## The effects of topical ibuprofen on muscle soreness

All athletes experience muscle soreness at some point. This soreness, known as delayed-onset muscle soreness, or DOMS, is caused by microscopic muscle damage. This damage occurs if you train in a way you are not accustomed to, if you come back from a training layoff, or even if you decide to perform a new exercise. This soreness can be debilitating and can last for several days. Athletes have tried all kinds of modalities for reducing soreness, from nutritional supplementation (see [CURING DOMS](#) for more) to medication. Some athletes will try over-the-counter pain medication to alleviate the pain, including non-steroidal anti-inflammatory drugs (NSAIDs) like ibuprofen. However, the oral forms of these medications can have severe side effects including deadly reactions. To reduce these unwanted effects, drug manufacturers have developed topical versions of NSAIDs that you can rub on your skin for pain relief. Research has shown topical NSAIDs to reduce muscle pain,<sup>3</sup> and similar amounts get into the muscle when applied topically as when taken orally.<sup>5</sup> However, there has been little research on the effects of topical NSAIDs on DOMS.



**Muscle soreness can be a pain, but don't fall into the trap of thinking that you can treat it like any other sort of pain.**

Photo: W. Henning

### Original Research

Hyldahl, R.D., et al. Effects of ibuprofen topical gel on muscle soreness. *Medicine and Science in Sports and Exercise* 42:614-621, 2010.

**Power Key:** NSAID, muscle pain, soreness, DOMS, ibuprofen