

Topical treatments provide effective local pain relief

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Gels, creams and sprays containing painkillers such as ibuprofen, diclofenac, ketoprofen, and piroxicam are safe and effective treatments for local pain, according to Cochrane Researchers. A new systematic review they have conducted shows that topical non-steroidal anti-inflammatory drugs (NSAIDs) are more effective than placebos for treating short-term pain and have few side effects.

Topical NSAIDs are usually applied as gels, creams or sprays, to the specific areas of the body where pain is felt. In many countries, they are routinely prescribed for local pain relief of mild to moderate pain. Topical NSAIDs are considered to pose less risk of adverse effects than oral drugs of the same type because they are rubbed into the skin and therefore do not reach high concentrations in the blood.

The researchers analysed data from 3,455 study participants who took part in 31 studies. Participants were given either topical NSAIDs or placebos, typically to treat short-term pain caused by sprains, strains or sports injuries. Most of those taking part were treated for between one week and a fortnight. NSAIDs were successful at reducing pain by 50% or more in over six out of ten cases, compared to four out of ten for placebos. Topical diclofenac, ibuprofen, ketoprofen and piroxicam seemed to provide the best results, but it was not possible to distinguish between them with certainty.

"Our study confirms that some NSAIDs are effective topical treatments for acute pain of the type caused by a sports injury," said lead researcher

Andrew Moore, of the Pain Research and Nuffield Department of [Anaesthetics](#) at the University of Oxford in Oxford, UK. "New formulations of topical NSAIDs are becoming available. We know relatively little about how these new formulations of drugs compare with older formulations, and this is an area that future research might address."

There were few side effects of the drugs and skin reactions occurred only as often as they did with placebos. "The fact that there were only mild [side effects](#) in a few patients and no serious adverse events suggests that these are generally very safe treatments and could be particularly useful for treating [pain](#) in people who don't cope well with oral NSAIDs," said Moore.

More information: Massey T, Derry S, Moore RA, McQuay HJ. Topical NSAIDs for acute pain in adults. Cochrane Database of Systematic Reviews 2010, Issue 6. Art. No.: CD007402. [DOI:10.1002/14651858.CD007402.pub2](https://doi.org/10.1002/14651858.CD007402.pub2)

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