

# Good News For Rub-On Pain Gels & Creams

By ACSH Staff — May 29, 2017



Credit: Shutterstock [1]

I was a clumsy child and had more than my fair share of bumps and knocks. As a result, I was the recipient of a considerable amount of repetitive advice to “rub it better”. My younger self did not regard this as helpful; I wanted the pain gone, now.

A bit of a brat, perhaps, but if you ask people with pain – any kind of pain, be it acute pain after a fall or operation, a headache, or chronic pain like arthritis – what they want from treatment, it is the same as I wanted all those years ago. [Pain gone, now](#) [2].

There may be something in the idea that rubbing a painful area might actually help. We rub the skin over a painful area almost instinctively. Touch applied at particular frequency can be pleasant. And while there is research that shows that it might help, it is a big jump to demonstrate that rubbing alone is a useful treatment for pain if that pain is moderate or severe.

But what about rubbing something on to a painful area – a cream or a gel? There are all sorts of these. Some aim to cool, some to produce a sense of heat, some contain drugs like nonsteroidal anti-inflammatory drugs (NSAIDs), or capsaicin, an extract of chilli. Some are for acute pain, some for chronic, some you can buy over the counter from the chemist, and others need a prescription. Any large pharmacy has a bewildering array of products. How do you choose? Are any better than just rubbing?

Help comes in the form of a new [Cochrane overview review](#) [3] that draws together all the current evidence. The overview pulled together results from 13 Cochrane reviews, with 206 individual trials and around 30,700 participants, to assess the benefits and harms of a range of topical (applied to the skin) painkillers for a range of conditions.

The main outcome was whether people with moderate or severe pain had their pain reduced to no

worse than mild pain with treatment. And the comparison was between rubbing on the test medicine and rubbing on a placebo medicine that was identical in every way except that it had no active ingredient. Both were rubbed on in the same way to discount the effects of rubbing itself.



*Some topical painkillers contain capsaicin, an extract of chilli. [Kovaleva\\_Ka/Shutterstock](#) [4]*

### **There's good news and bad**

First, the good news. In acute pain conditions, such as strains and sprains, two topical NSAID products, a diclofenac gel (Emulgel) and a ketoprofen gel produced good pain relief in about 70 to 80% of people, which was 40 to 60% more than with placebo. A good result here as the pain was reduced from moderate or severe to no worse than mild after about a week. The gel is important, because the same drugs in creams or plasters were not so effective (and there are probably good reasons for that). That's about it for acute pain products available, with or without prescription.

In chronic pain conditions, the news is less good. For musculoskeletal conditions, like osteoarthritis, ketoprofen and diclofenac gel produced good pain relief – after about two weeks – in just 15-20% more people than a placebo gel. (Good pain relief was going from moderate or severe pain to no worse than mild pain.) Curiously, placebo responses were quite high, so when we included the placebo response in the figures we found that 40% to 60% do well with diclofenac or ketoprofen.

There is also a product from chillies (capsaicin at a high 8% concentration) that is useful in about 10% of people with nerve pain; but that's a treatment used by specialists, often in hospital.

For many other rubbed-on products for pain relief (herbal remedies, salicylates, menthols, and

some NSAID preparations) we have no evidence or so little evidence that we cannot trust it. It may work, but if you buy it, you have no idea whether you are buying something really good or just wasting your money. Experience suggests the latter, but if you have a remedy you swear by, stick with it. I know a chap who swears by rubbing WD40 on a sore back, but I wouldn't recommend it.

Rubbed-on painkillers are designed to work locally, however. While there may be some local reactions (such as itching or redness), the good news is that effects on other parts of the body (such as nausea or dyspepsia) and serious side effects (such as bleeding) are rare because blood levels of drugs that are rubbed on are much lower than when they are taken orally.

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