

# How DMSO Safely Eliminates 'Incurable' Pain

Analysis by [A Midwestern Doctor](#)

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## STORY AT-A-GLANCE

- › NSAIDs (e.g., ibuprofen) and opioids are the standard for pain management but pose significant risks, causing tens of thousands of deaths annually
- › Dimethyl sulfoxide (DMSO) provides powerful pain relief, even helping individuals disabled by conditions like failed spine surgeries or severe arthritis regain health
- › It is also effective for hard-to-treat pain cases like complex regional pain syndrome, trigeminal neuralgia, fibromyalgia, migraine headaches and post-surgical pain
- › DMSO works through multiple mechanisms to relieve pain, including blocking nerve conduction, reducing inflammation, relaxing muscles, and improving circulation
- › Unlike opioids where tolerance develops over time, DMSO often becomes more effective with continued use, and many patients require it less frequently or not at all as their conditions resolve
- › This article reviews the science behind DMSO, clinical evidence from thousands of cases, and home treatment protocols for pain, arthritis, and injuries, plus tips on sourcing DMSO

Decades of research have demonstrated DMSO treats a wide range of illnesses, and recently, I've provided extensive evidence for how it treats:

**Challenging neurological conditions** (e.g., **Many autoimmune conditions** strokes, Down syndrome, dementia, brain and spinal cord injuries)

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Eye, ear, nose, and mouth disorders

A myriad of skin disorders

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Tissue injuries

Disorders of the internal organs

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However, while DMSO often produces remarkable results for those conditions (e.g., over the last few months, I've received **more than a thousand testimonials** from readers who tried using DMSO with great results), it is best known for its use in treating pain. This is because:

1. The response it creates is rapid and dramatic, to the point multiple people with chronic untreatable pain have shared with me it "left them laughing because it was so unbelievable."
2. It accelerates the healing of acute and chronic injuries linked to chronic pain.
3. It also helps chronic rheumatic diseases like arthritis.

## Why DMSO Stands Out

Drugs like NSAIDs and opioids are linked to severe side effects, including tens of thousands of deaths each year.<sup>1</sup> NSAIDs cause heart, kidney, and stomach damage, while opioids carry addiction and overdose risks.<sup>2</sup>

In contrast, DMSO **has demonstrated remarkable safety** for over 60 years without a single death reported. Its side effects, most commonly mild skin irritation or a garlic-like odor, are minor and temporary. Even at doses 30 times higher than normal, studies show no toxicity.<sup>3</sup>

DMSO's unique combination of safety, efficacy, and versatility makes it a transformative option for pain relief and injury recovery – proving that effective medicine doesn't have to come with dangerous trade-offs.

This program about DMSO on 60 Minutes, for example, provides a context to how impactful it has been for many Americans in pain:

## How DMSO Treats Pain

In addition to rapidly treating injuries<sup>4</sup> or autoimmune conditions<sup>5</sup> (which are often the root cause of pain) DMSO's has a few therapeutic properties that make it uniquely suited to safely treat a wide variety of pain conditions.

- **Conduction blocking** – Many different nerves exist in the body. One group, known as the "small fibers" are responsible for transmitting specific sensations and they (particularly the C fibers) are frequently linked to debilitating chronic pain syndromes (e.g., small fiber neuropathy – characterized by sensations of pins-and-needles, pricks, tingling, and numbness alongside burning pain and electrical shocks).

**Note:** *The five most common symptoms of COVID vaccine injuries, in order, are fatigue, post-exertional malaise, [brain fog](#), small fiber neuropathy, and dysautonomia.*

DMSO selectively blocks the conduction of the small fibers, thereby stopping the pain without causing significant damage to the rest of the body or having a tolerance develop to it (rather DMSO typically becomes more effective with time).

To illustrate:

A study found 5% to 10% DMSO blocked the after discharges of C-fibers<sup>6</sup> (a process associated with painful stimuli).

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DMSO has been observed to suppress NMDA and AMPA induced ion fluxes in neurons,<sup>7</sup> each of which are receptors linked to chronic pain (e.g., NMDA is linked to central pain sensitization<sup>8</sup>).

**Note:** *This property has been hypothesized to account for DMSO treating complex regional pain syndrome and cancer pain.<sup>9</sup>*

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DMSO has also been observed to block sodium and calcium ions' entry into cells<sup>10</sup> (likewise, many local anesthetics work by blocking sodium ion entry). This effect has also been proposed to explain how DMSO can help cancer pain.<sup>11</sup>

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DMSO has also been reported to significantly enhance the potency of local anesthetics.<sup>12,13,14,15</sup>

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In a human study, 50% DMSO was found to produce partial anesthesia (numbness) to pin pricking sensation.<sup>16</sup>

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Isolated sciatic nerves immersed in 6% DMSO for 30 to 120 minutes developed a temporary 40% decrease in conduction velocity.<sup>17</sup> A complete blocking of condition has also been observed with 75% DMSO in radial nerves<sup>18</sup> and with 5% DMSO in small peripheral nerve fibers.<sup>19</sup>

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- **Choline esterase inhibition** — Acetylcholinesterase inhibitors increase acetylcholine (the neurotransmitter of the parasympathetic nervous system) by blocking their degradation. Numerous studies show DMSO is an effective acetylcholine esterase inhibitor,<sup>20,21,22,23,24,25,26</sup> and that it blocks the inhibitory effects of the sympathetic nervous system.<sup>27</sup>

Chronic pain has been linked to excessive sympathetic activity, and counterbalancing that with an acetylcholinesterase inhibitor has shown promise for treating chronic pain.<sup>28</sup> However, unlike those drugs, DMSO does not have a risk of creating excessive acetylcholine levels (possibly because at higher doses it instead blocks cholinergic transmission,<sup>29</sup> or because it is a competitive rather than irreversible inhibitor<sup>30</sup>).

- **Anti-inflammatory** — Many of my colleagues who used DMSO in practice find it to be one of the most effective anti-inflammatory agents out there. DMSO in turn, has been repeatedly shown to:<sup>31,32</sup>

- Reduce inflammatory cytokines, prostaglandins, and pathologic inflammatory responses to tissue injury.
- Increase anti-inflammatory prostaglandins.
- Neutralize (scavenges) free radicals, which are both a cause and result of chronic inflammation and a common cause of tissue injury, degenerative illness, and chronic pain.

Research also shows DMSO prevents experimentally induced edema,<sup>33,34,35</sup> (including severe forms<sup>36</sup>), allergic eczema,<sup>37</sup> contact dermatitis,<sup>38,39</sup> tissue necrosis,<sup>40,41</sup> granuloma formation,<sup>42</sup> arthritis,<sup>43,44,45</sup> and joint stiffness following injury.<sup>46</sup>

Since inflammation is a key cause of pain (e.g., "chronic inflammatory pain" is well recognized<sup>47</sup>), this likely accounts for some of DMSO's analgesic properties.

- **Muscle relaxation** – DMSO tends to relax skeletal muscle<sup>48</sup> while simultaneously enhancing the contraction of other muscles<sup>49</sup> (e.g., 3% to 6% DMSO enhances the contraction of the heart and stomach).

DMSO applied topically to the skin of patients produces electromyographic evidence of muscle relaxation 1 hour after application,<sup>50</sup> while another study found 50% DMSO prevented the contraction of frog skeletal muscles.<sup>51</sup>

A 1966 study found that (as shown by electromyography) muscles in spasm will relax within 60 minutes of topical application. It also found that this relaxation could be used to treat headaches associated with cervical disease and complex regional pain syndrome.<sup>52</sup>

As muscle tension is a frequent cause of pain and musculoskeletal disorders, this property likely accounts for some of its efficacy for those conditions.

- **Circulatory enhancement** – DMSO removes blood clots and increases blood circulation<sup>53</sup> and has been recognized to eliminate the pain associated with blood

clots. This aligns with Chinese medicine's view that poor blood flow causes sharp, piercing pain.<sup>54</sup>

**Note:** *One of the most common side effects of vaccinations is them creating tiny blood clots (discussed further [here](#)), which then trigger microstrokes throughout the body that can often be detected with an appropriate neurological examination. To this point, **many of the injuries reported from the original smallpox vaccine** matched the same unusual pains and neurological symptoms associated with blood stasis in Chinese Medicine.*

## Treating Pain with DMSO

As opioids are seen as the gold standard for pain control, there is very little awareness research has shown a comparable analgesic exists. To illustrate:

- A 1983 study<sup>55</sup> using a common research metric (how mice respond to heat and tail flicks) found that DMSO produced an analgesic effect comparable in strength to morphine.

However, this effect was assessed to be due to a different mechanism as an opioid receptor blocker (naloxone) did not affect DMSO's ability to eliminate pain, DMSO did not produce any of the side effects seen with opioids, and DMSO's effect lasted far longer (4 to 6 hours and in some cases over 24 hours – whereas in contrast morphine typically lasted less than 2 hours).

**Note:** *Another mouse study using similar tests also found that DMSO blocks pain.*<sup>56</sup>

However, unlike other analgesics (pain killers), DMSO has a variety of unique properties. These include:

- It treats a very wide range of pain conditions, including ones other analgesics can't address. For example, case reports exist of DMSO treating phantom pain<sup>57</sup> (pain outside the body where an amputated limb had previously existed).

- Rather than the body developing a resistance to it (which is what commonly happens with opioids), DMSO often becomes more effective at eliminating pain with subsequent doses, and in many cases, is needed less and less frequently (or not at all because the condition is resolved).

Because of this, while acute pain rapidly responds to DMSO, chronic pain conditions often take 4 to 7 days of applications for DMSO to begin taking effect and 6 to 8 weeks for lasting relief to occur (e.g., to quote one patient, "after twenty-four DMSO injections, I was completely pain-free").

- In many cases, as is seen with other applications of DMSO, due to DMSO rapidly spreading throughout the body, the effect is systemic. For example, one study found 65% of patients experienced pain relief if DMSO was applied at the site of pain,<sup>58</sup> whereas 61.5% experienced comparable relief when DMSO was applied somewhere further away in the body. Because of this, DMSO has been found to help a wide range of pain conditions.

## Headaches

Tension headaches (e.g., those caused by muscular tension of the neck) and sinus headaches tend to respond to DMSO (with relief typically lasting 4 to 6 hours), whereas migraine and cluster headaches are less responsive to DMSO. For example, these results were reported<sup>59</sup> by two doctors:

**TABLE 1**  
**HEADACHE, NECK PAIN AND CRANIAL NEURALGIA**

Diagnosis	No. of Patients Treated		Ages	Duration	Results			Side Effects	
	Male	Female			Poor	Good	Excellent	Mild	Severe
<b>Vascular</b>									
Migraine	4	26	19-68	1 wk-8 mo	22	5	3	20	3
Cluster	4	1	37-59	2wks-4 mo	4	1	0	1	2
Nonspecific vascular	7	15	22-74	2wks-5 mo	11	7	4	14	2
Atypical face pain	0	3	36-62	1 wk-4 mo	2	1	0	1	0
Temporal arteritis	0	1	61	4 mo	0	1	0	0	0
<b>Tension</b>									
Anxiety & psychological	8	8	18-74	1 wk-7 mo	3	7	6	4	2
Muscle contraction	5	5	42-67	1 wk-3 mo	1	4	5	5	0
<b>Post-traumatic</b>									
Acute	2	7	17-73	1 wk-8 mo	0	7	2	3	1
Chronic	2	22	19-70	2days-9mo	5	18	1	16	5

**Note:** Many headaches are incorrectly categorized as migraine headaches. Additionally, while I have received reports of readers with life-changing improvements in migraine headaches, those headaches typically only respond to DMSO if it's applied during the early stages of the headache.

- Stanley Jacob MD reported on 59 patients with headaches from a variety of causes, of whom over 75% responded to DMSO.

This included 13 out of 17 patient with years of chronic neck pain from cervical arthritis that triggered headaches, (who then required a gradually decreasing DMSO dose), 4 out of 5 patients with sinus headaches improved from DMSO, 2 out of 2 patients with temporal arteritis (causing severe head pain) who fully recovered after DMSO and 26 out of 35 patients who'd had trigeminal neuralgia for more than a year with numerous failed treatments (13 of whom then had a full recovery).<sup>60</sup>

- Another study found DMSO both relaxes the cervical musculature and alleviates tension headaches.<sup>61</sup>

## Fibromyalgia



The pioneer of DMSO reported that DMSO helped 70% of Fibromyalgia patients<sup>62</sup> (with none experiencing side effects), and there are many published examples of it healing this condition.<sup>63</sup>

Over the years, I have also heard of quite a few cases of individuals with fibromyalgia having a massive improvement in their quality of life from DMSO but simultaneously, I've also seen quite a few cases where it needed to be done slowly for a sensitive patient (as otherwise the initial detoxification response was too much for the individual).

**Note:** *This principle is also important to keep in mind when working with other "sensitive patients."*

## Spinal Pain

Many of the most profound benefits from DMSO are found in patients with spinal issues (e.g., spinal stenosis, a failed back surgery, surgical scars, severe arthritis, previous spinal cord injuries, or bulging discs), and numerous testimonies (e.g., many can be found in the 1980 Congressional hearing on DMSO<sup>64</sup>) exist of individuals who had been in years of crippling pain suddenly getting their lives back because of how effectively DMSO treated their pain and restored their mobility.

However, while I frequently read case reports of this (and I've now received dozens from readers), I have only located one that specifically evaluated it. In that 1968 study,<sup>65</sup> 38 patients with lumbar and cervical disc problems received conventional (nonsurgical) treatments, and half also received DMSO – which was found to halve the required treatment time.

**Note:** *Topically applied DMSO is often extremely helpful for herniated discs (and much safer than systemic steroids). Additionally, a few people found injecting DMSO mixed with lidocaine into the vertebral musculature was quite helpful for spinal pain.*

Additionally, there are also many instances of quadriplegics who initially took DMSO to alleviate their chronic pain and then gradually regained motor function as a "side effect" of DMSO. In turn, **there are many cases of individuals overcoming lifelong paraplegia,**

(including cases where their "miraculous" improvement could be traced to DMSO as it stopped once DMSO was withdrawn).

## Complex Regional Pain Syndrome

Complex regional pain syndrome (CRPS) is a chronic pain condition involving autonomic and inflammatory issues, often triggered by trauma like surgery and linked to small fiber neuropathy. Its causes remain unclear, and treatment usually relies on multiple drugs targeting symptoms.

DMSO is one of the few effective alternative therapies for CRPS, as it blocks pain from small fibers. Unfortunately, its potential for treating CRPS remains largely overlooked.

**Note:** *Complex regional pain syndrome was an adverse event [associated with the HPV vaccine](#).*

The supporting evidence is as follows:

A 1985 study demonstrated that 50% DMSO reduced the inflammation associated with CRPS and improved symptoms associated with the condition.<sup>66</sup>

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A 1996 study of 32 patients with acute CRPS (e.g., heat, redness, pain, swelling, reduced range of motion) gave them 50% DMSO or placebo for 2 months, and a significant improvement was seen in the DMSO group.<sup>67</sup>

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A 2003 study randomized 64 patients with CRPS to receive topical 50% DMSO and 67 patients to receive N-acetylcysteine (NAC) for 17 weeks to a year. This study found that DMSO was a cost effective therapy that produced good to excellent results for the patients, especially when their CRPS was associated with inflammatory symptoms and when it was done earlier in the illness.<sup>68</sup>

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Another 2003 study of 146 patients also comparing 50% DMSO to NAC (over 24 months) found DMSO was effective, particularly for hot (inflammatory) CRPS.<sup>69</sup>

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A 2012 study gave 29 patients (who had had CRPS for less than a year) 50% topical DMSO and found DMSO significantly reduced their pain (with results approaching a complete absence of pain), brought back the functionality of the affected limb and improved their quality of life.<sup>70</sup>

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A 2012 study used a combination of treatments including 50% DMSO for CRPS and found this combination was effective for treating the condition.<sup>71</sup>

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Finally, a 2005 review of the existing therapies for CRPS concluded 50% DMSO had evidence of efficacy and, compared to the other treatment options, was the least likely to cause harm.<sup>72</sup>

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## Cancer Pain

Many cancer patients experience severe pain (which increases as the cancer becomes terminal), and in 10% to 20% of cases, it does not respond to standard opioid management.<sup>73</sup> In many cases however, it does to DMSO. For example:

- A study included two older patients with cancer pain DMSO, one of whom had an excellent response to treatment and one who had a good response.<sup>74</sup>
- Another study found that of 7 patients with metastatic cancer pain, DMSO gave 2 a full remission and 2 a partial remission.<sup>75</sup>
- One of the most well known examples was Otis Bowen MD (a popular second term Indiana governor) who "illegally" used topical DMSO to treat his wife's pain from terminal multiple myeloma and then publicly denounced the FDA's absurd embargo on it at the AMA's 1981 national meeting.<sup>76</sup>

Remarkably, a few years later, Bowen became Reagan's Secretary of Health and Human Services, but even then, with this highly ethical doctor at the helm of the HSS, DMSO was unable to overcome the FDA's prohibition of it.<sup>77</sup>

**Note:** For decades, ***the FDA has relentlessly stonewalled life-changing natural therapies*** to protect the medical industry from competition, and one of their most egregious campaigns was directed towards DMSO.

## **Surgical Pain**

Since DMSO both accelerates wound healing and reduces pain,<sup>78</sup> it is uniquely suited to post-operative pain. Numerous studies support this. For example:

- A rat study found administering DMSO into a wound before closing it significantly reduced the subsequent pain and guarding the rats had, suggesting this approach could address a common complication of surgery.<sup>79</sup>
- A 1967 study found that DMSO applied to the incision sites of thoracotomy (open chest surgery) patients in concentrations of 60% to 80% resulted in significant pain relief, and reduction of the opioids needed (which in turn led to fewer gastrointestinal complications).

These patients as a group were able to cough more effectively, move more easily both in and out of bed, resume early motion of the arm and shoulder, and in general enjoy a more rapid and less complicated postoperative course.<sup>80</sup>

- Another study gave 90% DMSO to 64 postpartum women with episiotomy pain and found that over half had pain relief and a reduction in swelling and that there was a significant improvement in mobility (with some patients who had left the hospital then requesting to resume DMSO to alleviate subsequent pain).<sup>81</sup>

## **Conclusion**

Since the pharmaceutical industry revolves around indefinitely selling pills that temporarily "treat" an illness, pain is one of its most coveted markets. DMSO's remarkable ability to safely eliminate pain (and that being well-known to hundreds of thousands of Americans over 60 years) hence provides some of the most substantial

proof I know of that effective therapies are being deliberately withheld from us to protect the medical monopoly.

Fortunately, the internet's rapid dissemination of information which challenges prevailing narratives, and the unprecedented ascendancy of the Make America Healthy Again has created a window to break this medical monopoly. As such, the results many are now having from DMSO are providing critical first hand experiences that will open eyes to the dysfunctional medical paradigm we are stuck within, and I am immensely grateful to see that this is happening in my lifetime.

**Author's note:** *This is an abridged version of [a longer article](#) that goes into greater detail on the data discussed here, how DMSO is used for pain, arthritis and musculoskeletal injuries (e.g., sprains), and provides guidance for personal DMSO use (e.g., dosing, therapeutic precautions and where to obtain it). That article and its additional references can be read [here](#).*

## A Note from Dr. Mercola About the Author

A Midwestern Doctor (AMD) is a board-certified physician from the Midwest and a longtime reader of Mercola.com. I appreciate AMD's exceptional insight on a wide range of topics and am grateful to share it. I also respect AMD's desire to remain anonymous since AMD is still on the front lines treating patients. To find more of AMD's work, be sure to check out [The Forgotten Side of Medicine](#) on Substack.

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