DMSO Heals the Eyes and Transforms Ophthalmology

DMSO's unique therapeutic properties reveal the unifying thread between many different "incurable" eye diseases.

A MIDWESTERN DOCTOR
OCT 25, 2025 · PAID

Story at a Glance:

• DMSO is an "umbrella remedy" capable of treating a wide range of challenging ailments due to its combination of therapeutic properties (e.g., reducing inflammation, improving circulation, and reviving dying cells).

• DMSO has a unique affinity for the eyes, resulting in it (often spontaneously) treating a wide range of visual disorders that frequently cannot be treated with conventional therapeutic options.

• DMSO's ability to restore circulation, revive dying cells, and stabilize misfolded proteins allows it to treat a variety of retinal diseases (e.g., macular degeneration, diabetic retinopathy or retinitis pigmentosa—in some cases reversing permanent blindness), eliminate visual obstructions (e.g., floaters and cataracts), reverse glaucoma or Fuchs' dystrophy, and restore normal focus (frequently eliminating the need for glasses).

• DMSO's anti-inflammatory and antimicrobial properties allow it to treat dry eyes, inflammatory diseases around the eye (e.g., blepharitis, styes, and psoriasis) or within the eye (e.g., iritis, uveitis, conjunctivitis, keratitis), along with bacterial, fungal, parasitic, or viral eye infections such as shingles.

•DMSO's healing properties also allow it to heal a variety of eye injuries (including severe ones which would otherwise require eye removal), skin issues around the eye (e.g., burns, skin tags, and under-eye bags), and eliminate eye muscle spasms.

•This article will review the extensive data demonstrating DMSO's efficacy for eye diseases, along with an examination of the most common protocols used for them and other natural approaches that also aid in the treatment of common eye disorders.

Since 2024, I have been working diligently to present the extensive data that DMSO is a remarkable therapeutic that is uniquely suited to treat many highly challenging medical conditions due to its counteracting many root causes of disease (whereas, in contrast, vaccines cause a myriad of health issues by inducing those key drivers of illness). From this, I've compiled a series of articles synthesizing thousands of studies that have shown DMSO effectively treats:

- Strokes, paralysis, a wide range of neurological disorders (e.g., Down Syndrome and dementia), and many circulatory disorders (e.g., Raynaud's, varicose veins, hemorrhoids), which I discussed **here**.
- A wide range of tissue injuries, such as sprains, concussions, burns, surgical incisions, and spinal cord injuries (discussed **here**).
- Chronic pain (e.g., from a bad disc, bursitis, arthritis, or complex regional pain syndrome), which I discussed **here**.
- A wide range of autoimmune, protein, and contractile disorders, such as scleroderma, amyloidosis, and interstitial cystitis (discussed **here**).
- A variety of head conditions, such as tinnitus, vision loss, dental problems, and sinusitis (discussed **here**).
- A wide range of internal organ diseases (discussed **here**).
- Many different respiratory disorders, including asthma and COPD (discussed **here**)

- Many different gastrointestinal disorders, such as bowel inflammation, cirrhosis, and pancreatitis (discussed **here**)
- A wide range of skin conditions, such as burns, varicose veins, acne, hair loss, ulcers, skin cancer, and many autoimmune dermatologic diseases (discussed **here**).
- Many challenging infectious conditions, including chronic bacterial infections, herpes, and shingles (discussed **here**).
- Many aspects of cancer (e.g., many of cancer's debilitating symptoms, making cancer treatments more potent, greatly reducing the toxicity of conventional therapies, and turning cancer cells back into normal cells), which I discussed **here**.

Since the evidence in those articles (along with one on how DMSO can be synergistically combined with pharmaceuticals and another on how DMSO combines with natural therapies) made a compelling case for the use of DMSO, many readers opted to start using it. Many of them, in turn, had remarkable improvements which caused them to recommend DMSO to their peers, and because of all those successes, a widespread interest in DMSO has now emerged.

On one hand, this has been quite surprising to me as the information I publicized has been widely available for decades, but (possibly due to it being impossible to profit off DMSO because of how little it costs) most of the people exposed to this series were not even aware this therapy existed, let alone what DMSO could do. Conversely, the groundswell of interest is not surprising as it's nearly identical to what happened when DMSO was first discovered in the 1960s and it rapidly became the most popular drug in America—particularly since relatively minimal progress has been made on most of the "incurable" conditions it cured back then. Consider for example this 1980 segment 60 minutes created, which showed the remarkable results generated from the therapeutic use of DMSO and more importantly, the exact same stonewalling and suppression of DMSO from the FDA that we saw throughout COVID-19:

User DMSO Reports

Because of DMSO's high degree of efficacy, the moment I began the series, I started being flooded with testimonials from readers of the remarkable improvements DMSO had created for them. Before long, I realized I was in a similar situation to what I'd been in throughout COVID-19.

I have long believed one of the core strategies the ruling class always follows is to establish rigid hierarchical systems that have dominion over critical facets of society and then buy out the top of the pyramid, as that provides a relatively low-cost way to control the entire society. In the case of medicine, this has translated to having pharmaceutical compliant individuals (through industry funding and media complicity) be anointed as experts who reinforce the profitable orthodoxy alongside having medical journals only publish things which cater to the existing vested interests.

Because of this, things that are "controversial" (threatening vested interests) are rarely published in a "credible" medium, and as a result, anyone who tries to advocate for them is not listened to; instead, they are chastised for endorsing "unproven" and unscientific beliefs.

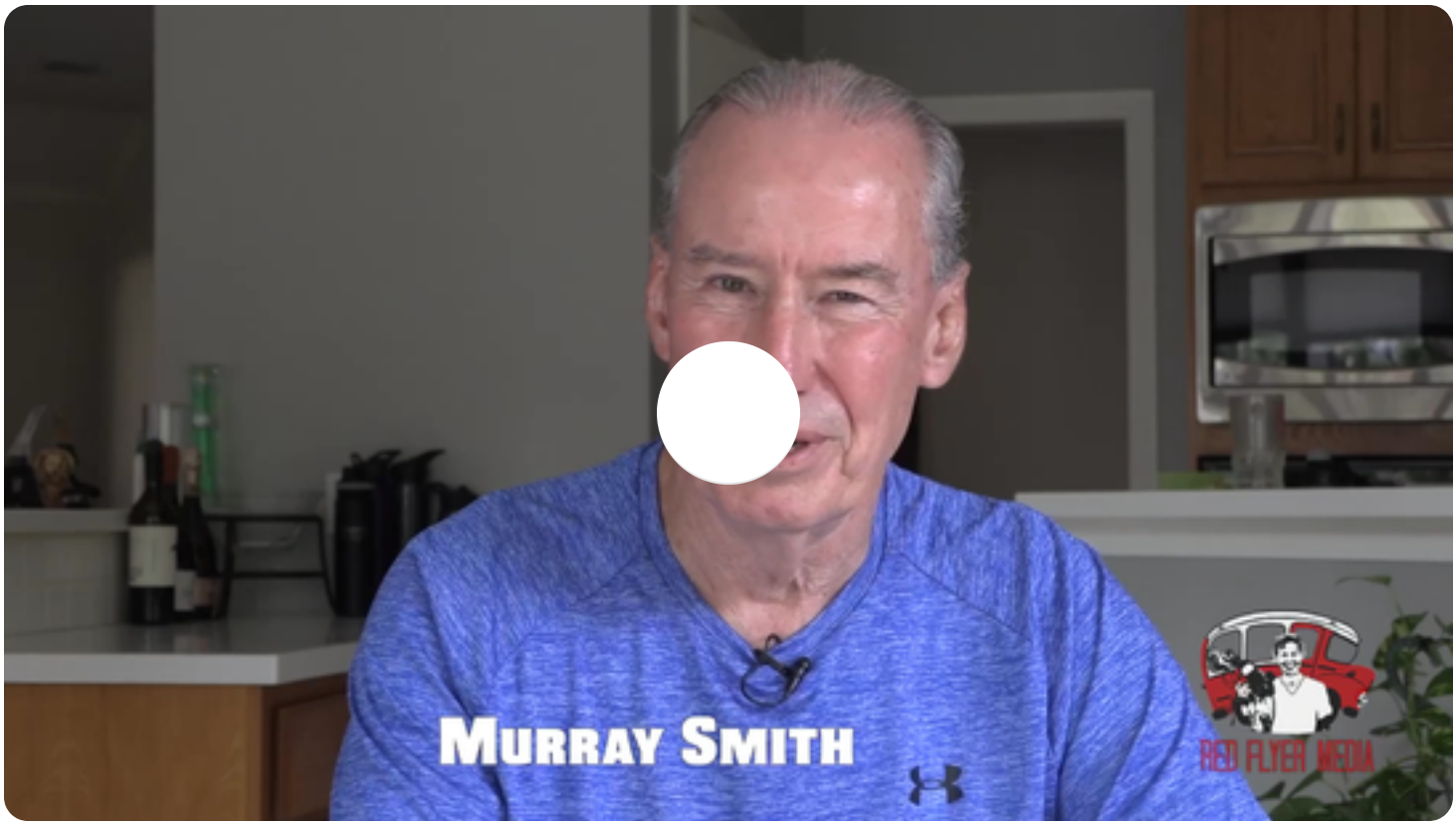
When the COVID vaccines hit the market, I had expected they would cause a significant number of chronic issues that would take years to be recognized—so I was quite shocked to be immediately flooded with reports across the country of severe reactions of all types from the vaccine. Because of this, I felt I needed to log them as I knew injuries like these would **never** get published in medical journals and I wanted to have some type of proof that vaccine injuries were real, so in the future I could present accurate information to skeptical parties. I hence spent an inordinate amount of time interviewing those involved and compiling all of them and after unexpectedly gaining a Substack audience, I published that log, and it went viral because my small sample accurately represented the pattern of vaccine injuries everyone was seeing around them and because more than a year into the COVID vaccine rollout, no one had done anything similar—despite the massive demand for this type of information.

In the process of doing that, I had also received a lot of reports of individuals who appeared to be being injured by COVID vaccine shedding—despite this being "impossible" based on the purported design of the vaccines. As the reports, like those for the COVID-19 vaccine injuries, were consistent in character (and like the vaccines many affected by shedding were understandably desperate for information on the topic) I decided to spend a year compiling thousands of those reports as I knew there would never be a journal willing to touch the subject. Following this, I then produced a synthesis of that data which showed there were clear repeating patterns to mRNA shedding and provided the critical mechanisms to explain this seemingly inexplicable phenomenon. That, in turn, was an inordinate amount of work to do, but succeeded and made many realize shedding is a real risk of the mRNA technology—something which will be critical for opposing future attempts to inject the population with experimental gene therapies.

In the case of DMSO, as I started receiving all of these reports (at a time when I had essentially finished the shedding project), I realized that I had access to a unique dataset that had not previously been available. More importantly, because there were so many different things that DMSO could treat, a dataset like this would likely be the only place much of that therapeutic data could ever be compiled (as no one would ever get around to conducting studies on many of those uses—particularly since the current academic publishing climate is much more hostile to publishing unorthodox research now than it was fifty years ago).

So, over the last 13 months, one of my primary projects has been to compile all the reports I've received (which I did in the comments here), and I presently have 4,721 comments—of which I think roughly 3,000 are unique stories of therapeutic benefit people have experienced. In turn, my plan is to eventually compile and synthesize all of that, but as doing that will take at least a month, I've held off until the end of the series (so I wouldn't have to redo it with new data that was subsequently received).
Note: my general sense from all the testimonials I've received is that between 80-90% of users have a positive response to using DMSO (which is frankly extraordinary), with lower rates (50%) being seen for certain issues which are harder to correctly treat with DMSO, and give or take 0% success rates being seen for issues DMSO is not thought to treat (suggesting the sample I'm observing is representative of real life data).

Within those comments, while most of the reports I've received are consistent with what DMSO is recognized to do (e.g., rapidly eliminating debilitating pain that nothing else had worked on), some were quite extraordinary and not what I'd expected to come across. For example, after I learned a 75 year old reader who'd been blind since birth had regained their sight after using DMSO to treat a sinus issue, I realized his story needed to be shared:



Note: as fate had it, Murray lived about 3 hours away from Rebecca Cunningham, the Texas-based documentary film maker who cured her neighbor's terminal COPD with nebulized DMSO, after which millions saw Dan's COPD story.[1,2] As DMSO changed her life, she is currently collecting other DMSO testimonials on her Rumble channel and kindly agreed to travel to Murray to film this. If you have a story to share and are ever passing through Wimberley or visiting the hill country in Texas, please reach out to her.

In compiling these reports, I was struck by how many were for the eyes, by how well DMSO worked across an extensive range of eye conditions, and by the fact that, in the majority of cases, it provided better results than could be expected from existing ophthalmology options.

Note: the only well-recognized ophthalmologic conditions I did not receive reports on were amblyopia, strabismus, diabetic retinopathy, keratitis, optic neuritis, retinal detachment, retinopathy of prematurity, chalazions, central retinal vein occlusion (although a reader's branched retinal vein occlusion responded to DMSO), and eye cancers—many of which, as I will show in this article, existing data sources suggest do respond to DMSO.

Later, while translating the discoveries of the German community, I learned their data matched that of the readers here:

> One of the first new adopters of DMSO (circa 2012), began successfully using highly diluted DMSO for eye treatments in his practice. This led to a network of practitioners using DMSO for eye health, accumulating substantial experience, and, in many cases, treating eye issues where the cause could not be determined.
>
> In general, there are a surprising number of successful reports using DMSO eye drops for a wide variety of eye symptoms and diseases. So many, in fact, that I now consider the DMSO eye solution an exceptional "eye care."
>
> Many users (especially those with heavy screen time) apply DMSO preventively to maintain eye freshness, improve tear quality, and reduce night glare. Positive effects, including improved vision, better tear film, fresher eyes, and reduced night glare, are often reported after the first few applications, enhancing overall eye comfort and function—including in people whom ophthalmologists did not diagnose with any eye conditions.
>
> The positive effects are often reported after the first few applications, but I consider [low dose eye drops] a longer-term option. Due to the excellent diagnostic results and the complete absence of adverse effects from low dose drops (including results from ophthalmologists for a wide range of eye disorders) I increasingly view DMSO eye drops as a **preventative measure, eye care for those with** (**still**) **healthy eyes,** since modern life, particularly excessive screen time, places significant demands on our eyes.

Note: the above was extracted from an AI-generated summary of hundreds of hours of non-English lectures, then further condensed by me and hence not a direct quote (but one that accurately represents the author's statements).

While this might be difficult to believe, consider a parallel situation. Another umbrella remedy I have been deeply impressed by, ultraviolet blood irradiation (which has many similar therapeutic properties to DMSO), has a vast volume of literature

demonstrating its clinical value—including for numerous immensely challenging to treat diseases. Yet, virtually none of the medical profession even knows this therapy exists.

For this reason, we are currently sorting through thousands of UVBI studies, including dozens of studies (many of which were conducted with hundreds of patients) which show UVBI treats a myriad of challenging ophthalmologic conditions such as:

> blepharitis,[1] keratitis,[1] corneal inflammation,[1] herpes zoster ophthalmicus,[1] traumatic eye infection,[1] uveitis,[1,2,3,4,5] iridocyclitis,[1,2] choroiditis,[1] chorioretinopathy,[1,2,3,4] choroidal and chorioretinal dystrophy,[1,2] macular degeneration,[1] retinitis pigmentosa,[1,2] retinal contusion,[1] retinal ischemia,[1,2] retinal and fundus hemorrhages,[1,2,3,4] retinal artery and vein occlusions,[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15] diabetic retinopathy,[1] ischemic optic neuropathy,[1,2,3,4,5] optic neuritis,[1,2,3] optic nerve atrophy (traumatic or inflammatory),[1,2,3] encephalopathic vision loss[1]

Note: in this article, each superscipt number links to either a reader's story or an applicable study—like the many I listed above (which the ophthalmology profession does not realize exists).

As such, the purpose of this article will be to highlight exactly how DMSO is transforming ophthalmology, along with the supporting data.

Note: the best review paper on DMSO's uses in ophthalmology (which is an excellent resource to provide to physicians who are skeptical of using DMSO for the eyes) can be read here.

The History and Safety of DMSO

One of the major questions everyone has with DMSO is, "How could I never have heard of something that costs almost nothing and safely treats a broad swathe of ailments?"

For this reason, and to head off the inevitable attacks any off-patent therapy which threatens the pharmaceutical industry faces, two of the earliest articles I wrote in this series were written to explain that peculiar history.[1,2] The abridged version of them is as follows:

DMSO is found throughout nature and is present in many fruits and vegetables. After being discovered in 1866, it was forgotten until the 1940s when an industrial need for more solvents led to it being re-examined. In the 1950s, one company that was the primary American producer of it (by extracting it from wood pulp) assigned one of its chemists (Herschler) to determine whether any other uses existed for the solvents they were producing.

Herschler eventually discovered DMSO could bring substances into the body (making it an ideal drug delivery option), and in 1961, reached out to a leading researcher at the local medical school, Dr. Stanley Jacob. Jacob, having recently learned it had just been discovered DMSO could be used as a cryopreservative (solving a major challenge in medicine), was receptive to Herschler. Jacob began experimenting and rapidly discovered DMSO had a number of remarkable therapeutic properties which transformed medicine, so before long, he decided to invest his entire career (and personal life) behind DMSO. Fortunately, once Jacob (an exceptionally selfless individual) used up his life savings to conduct the initial DMSO research, the Dean at his medical school decided to support him with additional funding and protect him from his hostile peers (which was an immense stroke of luck).

Before long, skeptical doctors in Oregon were gradually won over due to the incredible results DMSO produced, and pharmaceutical companies began making massive investments in DMSO. At this point, production of medical DMSO shifted entirely to synthetic sources, as it was not possible to achieve the high purity required for pharmaceuticals from wood-derived preparations, despite the slightly higher cost of the synthetic route.

Around this same time, the FDA just barely averted a national thalidomide disaster, and used the public attention around this to pass a 1962 law which gave them broad powers to police the production of medications in the United States.

In 1964, Jacob and pharmaceutical company representatives met with the FDA scientist who stopped thalidomide, who told them the FDA wanted to do everything possible to permit further testing of DMSO. However, she also shared, **they were simultaneously worried about being overwhelmed by a large number of DMSO drug applications**. Because of this, DMSO became the FDA's test case to work out its new regulatory powers, and a variety of roadblocks were put in place against it.

Nonetheless, the remarkable trial results kept coming in, DMSO rapidly became the most demanded drug in America, and much of the public simply ignored the FDA's requests to refrain from using a remedy which had not yet been proven safe or effective and started using DMSO themselves. In short, the FDA was eager to halt DMSO research. Then, on September 9th 1965, a woman taking numerous drugs including DMSO, with multiple allergic reactions to what she ingested eventually had a fatal anaphylactic reaction. In response, the FDA began cancelling existing drug investigation permits—despite the death never being linked to DMSO (nor anything similar having happened since).

Then in November, data emerged showing that very high doses of DMSO, far above those ever used, could change the refractive index in dogs eyes (effectively making them require glasses). At that point, the FDA banned all DMSO research in the United States and sent out a global telegram that DMSO could make you blind—despite no issues being observed in any of the 37,000 clinical trial participants (or the other

100,000 people using DMSO). In contrast, numerous commonly used drugs are known change the refractory index in humans.[1,2,3,4]
Note: this is why so many studies I've cited in this series were researched between 1961-1965 and not later.

The scientific and patient community understandably rebelled against this, at which point the FDA decided to wage a war of intimidation to assert its newfound powers and bring the medical community into compliance (which was ultimately successful and part of why researchers now rarely pursue unorthodox topics).

The scientific community fought back, and before long produced robust data showing that DMSO had no toxicity at all (e.g., in one 1975 study, prisoners had their entire body covered with DMSO gel daily for 90 days and then were subject to every test imaginable—**with no toxicity being detected**), along with hosting numerous symposiums showing promising DMSO research from around the world.
Note: around this time, DMSO eye drops came into use, and have been estimated to have now been used without issue by hundreds of thousands of people.

Sadly, for decades, the FDA refused to relent, and eventually numerous Congressional hearings were held (the first of which was immediately preceded by the 60 Minutes segment, as Mike Wallace wanted to draw national attention to the issue).

To defend their increasingly unpopular prohibition on DMSO, the FDA repeatedly claimed they would soon approve DMSO, and just needed "well controlled studies"—which by the FDA's arbitrary standards were impossible to do with DMSO, as the rapidity with which it elicited improvements alongside the characteristic odor and skin irritation it created made it impossible to ever conduct blinded studies.
Note: the one approved use of DMSO (for interstitial cystitis) occurred shortly before the 1980 hearing, possibly to address criticisms that they were stonewalling DMSO.

Eventually, in response to outrage over the FDA raiding natural medicine suppliers at gunpoint, Congress passed the 1994 DSHEA Act which took away the FDA's ability to regulate natural products (and hence DMSO), but sadly by this point, decades of

prohibition had made DMSO largely forgotten. Following this, DMSO began being incorporated into a variety of pharmaceutical products as a "safe and inert" ingredient which facilitated the function of the active ingredients. While in tandem, extensive research continued to be conducted on its uses in medicine (with tens of thousands having now been published).

DMSO's Toxicity

Most assessments showed DMSO was orders of magnitude safer than many commonly used therapeutic substances (e.g., its LD50 across species is approximately 20 g/kg, and cells exhibit no adverse effects from prolonged exposure until DMSO concentrations exceed 1%—which is effectively impossible to reach in the body as nearly a liter of DMSO would need to be drunk each day).
Note: as cells are quite sensitive to changes in their external environment, similar effects to those observed with 1% DMSO are seen for many other "safe" substances at far lower concentrations. However, these toxicities are typically not clinically relevant as pharmaceutical drugs rapidly dilute in the body, exposing tissues to minimal concentrations of them.

Similarly, on the FDA's system for reporting adverse drug reactions (FAERS), since 1980, a minimal number of adverse events have been reported for DMSO (most of which were due to its characteristic side effects—odor or temporary irritation at the site of application).

Within the (extremely vague and incomplete) reports there, I have only been able to find three deaths potentially linked to DMSO—one in Germany from an overdose from a lot of oral DMSO, one from a fatal bladder hemorrhage after a DMSO combination was put into it, and one from an anaphylactic reaction (along with eight from IV DMSO where the other injected substances were not listed). In contrast, numerous commonly used drugs kill dozens of people each day.

To illustrate how rare adverse events are, in the last 13 months (where DMSO use increased significantly due to this series), only one adverse event was reported to the

FDA specifically for DMSO—someone being upset that their cannabidiol (CBD) was combined with DMSO.

Case ID	Suspect Product Active Ingredients	Reason for Use	Reactions	Outcomes	Sender
25493862	Dimethyl Sulfoxide;Cannabidiol\Herbals	Neuralgia	Product Formulation Issue;Contraindicated Product Administered	Non-Serious	Consumer

Likewise, within the reader reports I've received, temporary skin irritation (**due to using too high a DMSO concentration**) and unwanted odors were by far the most commonly reported, along with a small number of temporary headaches, nausea, local potentially allergic reactions, or an existing rash worsening (rather than improving). To the best of my knowledge, only seven people have shared a significant response to me (e.g., from potentiating an anti-arrhythmic drug requiring a lower dose to be used, mixing DMSO with arnica they were allergic to, or DMSO mobilizing a known chronic toxicity within the body—resulting in their overall symptomatology worsening).

Note: when I published the DMSO series, I never expected it to take off the way it had, and before long, I became quite worried I would start receiving reports of significant complications from it due to just how many people were using it, the numerous (theoretical) issues which can arise from accidentally combining it with a toxin or allergen and the fact that I have seen patients, particularly sensitive individuals, have negative reactions to just about every therapy out there (which is why I've put so much emphasis in each article on how to use DMSO safely).

It has hence been jaw dropping to me that so few significant DMSO reactions have been shared with me. Conversely, when I've looked at reports within the broader DMSO community, the primary issue appears to be combining DMSO with more toxic pharmaceuticals (e.g., fluoroquinolone antibiotics or certain chemotherapies) as it increases the probability the severe side effects associated with standard doses of those drugs will occur (leading to it being advised to space them out by at least two hours), or with IV infusions of DMSO as higher IV doses can increase parasympathetic tone and slow the heart rate.

DMSO and The Eyes

> Ophthalmologist Norbert J. Becquet, M.D., of Little Rock, Arkansas, reported to the American Academy of Medical Preventics [now ACAM] in May 1980 that he had great success using DMSO in treating cataracts and other eye problems. "I've treated two hundred patients in the last year for macular degeneration, macular edema, and traumatic uveitis."

DMSO's uses for the eyes originally emerged after participants in early clinical trials noted that their vision frequently improved when an unrelated issue was being treated. Noticing this in several patients being treated for musculoskeletal issues, Stanley Jacob referred them to a local ophthalmologist, who then conducted years of research in this area. Likewise, readers here have frequently reported that vision significantly improves after DMSO is applied to another part of the body—particularly the neck (which is likely due to its blood supply being closer to the eyes).

I will now attempt to cover all pertinent data explaining why DMSO helps the eyes and the specific conditions it has been observed to improve (which comprise most standard ophthalmologic conditions—including many **that have no good conventional treatment options**).

Note: DMSO's uses for the eyes have been known about in the right circles for a long time (e.g., one reader shared their gifted alternative MD suggested it over 20 years ago).

Ocular DMSO Distribution

The logic behind putting DMSO in the eyes is that a much stronger dose can get to the eyes than what would arise from systemic applications of DMSO. To evaluate DMSO's distribution (and that of its metabolic breakdown products), radioactive forms of DMSO (DMSO synthesized from either ^{35}S or ^{3}H or both) were placed in animals and then their entire bodies were monitored for radiation emissions.

In one study, it was noted that while DMSO tended to distribute evenly throughout the body (typically being at a lower concentration in the tissue than in the blood), in the iris and ciliary body, it matched the blood's concentration, **while in the cornea** (**the**

surface of the eye), after 2 hours it was 2.2 times higher than the blood in rabbits and 4 times higher in rats (but did not increase with repeated admissions). In other words, DMSO specifically concentrates in the cornea when administered into the body (after which it rapidly cleared), which likely explains why incidental improvements in vision are repeatedly observed when DMSO is used in another part of the body and to some extent concentrated in the vitreous (however I cannot say how much it concentrates within the vitreous portion of the eye as I have not come across any data on this). This concentrating is important as it explains why low doses of DMSO frequently incidentally improve the eyes.

Note: in humans, when DMSO was taken each day at 3-30 times the standard dose (achieved by covering the entire body in DMSO), 9% of participants experienced burning or aching eyes—again indicating DMSO concentrates in the cornea. However, even at these high doses, other than temporary eye irritation, no adverse effects occurred to the eyes.

Conversely, in another study, where rats' eyes were exposed to DMSO, it was found that regardless of the route of administration or the concentration used, DMSO rapidly cleared from the eyes:

CONCENTRATIONS OF DMSO IN WET OCULAR TISSUE UP TO TWO HOURS AFTER ADMINISTRATION

Length of Time after DMSO Administration	Concentration of DMSO Remaining in Tissue*		
	Group I 50% DMSO by EyeCup Immersion	Group II 50% DMSO by Eye Drops	Group III 100% DMSO by Eye Drops
min	mmol of DMSO × 10^{-7}/mg tissue		
5	82.7 ± 42.9†	69.4 ± 18.3	144.5 ± 58.1
10	23.7 ± 9.9	61.9 ± 26.2	25.8 ± 3.5
30	8.4 ● 6.1	10.5 ± 2.8	16.5 ± 10.2
60	6.9 ± 2.9	4.0 ± 0.7	7.6 ± 3.2
120	2.3 ± 0.8	1.6 ± 0.3	6.4 ± 1.1

This in turn, suggests that DMSO can rapidly extract things from the eyes that should not be there (e.g., excessive fluid) as whatever is in the eye will be drawn out into the

rest of the body with the DMSO that leaves the eyes.

DMSO Eye Safety

Due to the intense scrutiny placed upon DMSO because of the potential refractory issues and the inherent uncertainty over if DMSO could be placed in the eyes, extensive research was conducted on its eye safety. From this, no study—including high dose ones in humans or primates was able to detect eye toxicity from DMSO (all of which I summarized here—including a JAMA publication attesting to DMSO's eye safety).

Furthermore, in addition to the effects of systemic DMSO upon the eyes, the effects of DMSO applied directly to the eyes have also been studied, where it has been found no toxicity occurs beyond temporary irritation at higher concentrations unless high doses are directly injected into the eyes—something I believe is reflective of DMSO's tendency to rapidly dilute once it enters the body (making local high concentrations only possible to achieve with injections). Those studies are as follows:

1. The most detailed study put various combinations of steroids, 15% DMSO, or a saline placebo into rabbit's eyes. A wide range of parameters inside the eyes were studied (e.g., regular body weights, intraocular pressure, retinoscopy, ophthalmoscopic, and biomicroscopic examinations alongside dissection of the eyes and examinations of their contents), alongside those outside the eye (e.g., urine volume, urine composition, blood work, autopsies of organs) were then assessed. From this, it was found that 15% DMSO **created no adverse effects**, but did:

•Increase urine volume—DMSO alone increased it by 14.6%, while when added to varying concentrations of fluocinolone acetonide (a steroid), it increased by 4%, 29%, or 58% (which again illustrates that DMSO moves into the bloodstream after being applied to the eyes).

•Cause a slight decrease in urea in the aqueous humor of the eyes (which was small enough that it may have been due to chance).

•Decrease intraocular pressure (which is often quite helpful for the eyes).

Additionally, this study also applied 30% and 100% DMSO to rabbit eyes. In both cases, no evidence of change was seen in any part of the eye (the iris, cornea, lens, retina, conjunctiva, and lids), but 100% DMSO was observed to cause temporary lacrimation (tearing).

2. A separate paper on the known toxicology of DMSO also noted that:

•A Draize eye test (applying DMSO to an animal's eye and keeping it on the eye) resulted in a slight conjunctivitis (eye irritation) which disappeared within 24 hours.

•One study found ocular instillation of 0.1 ml of 100% DMSO in rabbits caused reversible irritation of the conjunctivae, while another author failed to observe this effect.

•In humans, two drops of greater than 50% DMSO applied to the eye caused a temporary burning sensation and vasodilation; concentrations of less than 50% exhibited no toxic effects.

3. Another study found that DMSO gave eye drops at 66% concentration to four patients, and one of the four experienced a temporary burning each time the drops were applied. Likewise, varying degrees of irritation and burning occurred as higher concentrations were used. However, no damage (as shown by a fluorescein stain) occurred to either their eyes or the animals in the study after ocular DMSO applications.

That same study also gave 4 rabbits 90% DMSO to the eyes six times a day, and then after 2 weeks, DMSO at 66% six times a day. At 90%, 2 of the rabbits experienced a temporary severe conjunctival injection (red eyes from swelling and inflammation of the blood vessels in the eye), but no keratitis (inflammation of the cornea) or damage to

the lens was observed, and of the 6 total rabbits who received ocular DMSO, 3 had some degree of conjunctival irritation from DMSO.

Note: one Substack author recently chronicled an experiment where they repeatedly applied 100% DMSO to their eyes (a concentration much greater than what it typically recommended) and noted no side effects besides five minutes of irritation (along with a noticeable improvement in vision and their floaters mostly disappearing).

4. Another study **injected** 1%, 10%, 50%, or 100% DMSO into rabbit eyes. Single injections produced temporary eye irritation, with no long-term toxic effects. Transient retinal toxicity was seen 1 hour after injection of DMSO, but cleared completely in 1 month. When DMSO was repeatedly injected into the eyes, cataracts were observed to develop in 6-8 weeks.

5. A human study reported giving topical DMSO to the eyes of 108 patients (for a total of 157 eyes) at a higher concentration than others used. That author noted that no toxicity or eye issues were observed (with monitoring periods up to 19 months post treatment), including in patients with pre-existing eye issues (e.g., 8 glaucoma patients who frequently had their intraocular pressure rise when given a steroid did not have it rise from DMSO and likewise 17 patients with pre-existing cataracts did not have them worsen from DMSO).

None of the human eyes treated with topically applied DMSO for periods ranging from approximately one month to fifteen months exhibited any evidence of corneal injury or deposits (which are sometimes seen with certain eye medications), cataract development, or refractive changes, while varying degrees of conjunctival irritation and complaints of burning occurred with the use of the higher concentrations.

6. An unpublished study (detailed in this 1980 book), of a series of 30 German patients (along with 280 more treated for various periods) who took DMSO detected no adverse effects in any of the subject's eyes, with one author noting the dosages required to create the lens effects seen in animals were astronomical compared to what humans took.

Note: I have now received a large number of reports from readers who shared they've used DMSO eye drops for a prolonged period without issues (e.g. here are 15 [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15] along with two in dogs[1,2]).

The existing data also shows the toxicity threshold for DMSO to the eyes is much higher than the doses eyes will be exposed to from clinical applications (as the small amounts of DMSO dilute and rapidly pass through the eyes rather than remaining concentrated in one spot). For example:

•Low concentrations of DMSO (0.01%) were not found to subsequently affect retinal function, whereas low concentrations of alcohol did.

•A 2004 study demonstrated DMSO had negligible toxicity to the eyes. It found that keeping human retinal pigment epithelial (RPE) cells in 1% DMSO for 48 hours slightly decreased their viability (demonstrated through a reduced optical density), while 2% (after 72 hours) slowed their growth,[1,2] while a study on rabbit RPEs showed that 4% DMSO after 48 hours significantly increased apoptosis and enhanced their antioxidant ability.
Note: when I compared this to sustained exposures from other commonly used drugs, similar toxicities were seen at much lower concentrations (typically between 0.24% to 0.00072%).

•When DMSO was injected intravitreally into rat eyes, 0.1–0.2% showed no detectable effects on scotopic b-wave amplitudes, while 0.5% caused mild increases and 1.0% caused significant increases, suggesting 0.2% or less has no functional impairment in retinal ERG. In contrast, other substances tested intravitreally, such as GABA, glycine, or glutamate antagonists, affected b-wave amplitudes (e.g., suppressing it) at concentrations ranging from ~0.0001–0.19%. In another rat study, DMSO injections below 0.6% had no effect on retinal ERGs, but above that, there was a temporary suppression.

Note: DMSO has long been used to preserve corneas[1,2] as it has a low enough toxicity to the eyes that high concentrations of it (e.g., 10%) can be used to cryopreserve corneal and conjunctival cells and prevent otherwise lethal cold from destroying them.[1,2]

Finally, one of the most common questions I receive is whether DMSO can be used on the eyes with artificial interocular lenses (IOLs). Presently, I am relatively certain DMSO eye drops of low concentrations are not an issue as:

- Dilute DMSO almost never leaches materials, and drops of lower concentrations applied to the eyes rapidly dilute as they slowly enter the eyes through the cornea.
- The most common (but not all) types of IOLs are fairly resistant to DMSO.
- The American Academy of Ophthalmology has said there is no evidence of DMSO harming IOLs (although it's not clear if this refers to DMSO taken in other parts of the body or applied directly to the eyes)
- German ophthalmologists have reported no issues with low dose DMSO eye drops and IOLs.
- No one in the DMSO community has reported issues either, and instead have found that DMSO frequently is quite helpful for healing complications of eye surgeries.

However, I do not know if high dose DMSO eye drops can be used with cataract lenses as different lens materials have different sensitivities to DMSO, in many cases that information is not available (e.g., German ophthalmologists who tried to find out what plasticizers are in the lens and their DMSO solubility have not been able to get the information they needed from manufacturers).

Likewise, while **I have not been able to find a case where this actually happened**, my primary concern is that while it's highly unlikely DMSO will ever reach the strength needed to dissolve cataract lenses, a small amount of interaction with DMSO (from high concentration eye drops) could theoretically distort lens enough that it needs to be replaced.

In short, every source I've looked at advises only using low dose DMSO if you have cataract lenses.

*Note: **if you have contacts, they should never be used in conjunction with DMSO** and enough time should be given between the two to prevent there from being any DMSO remaining on the eye to interact with them.*

Enhancing Ophthalmic Drug Delivery

DMSO has been repeatedly found to enhance the penetration of drugs into the eyes[1,2,3,4] (e.g., one rabbit study found it enhanced topically applied medications entering the cornea and anterior chamber of the eyes), potentiate certain ocular medications (e.g., anesthetic eye drops), and is sometimes used to treat specific eye conditions (e.g., DMSO plus the antiviral 5-IDU was used in one study to treat shingles within the eye—a dangerous condition which is challenging to treat, and DMSO plus 5-IDU was previously an approved treatment for herpes simplex keratitis that is sometimes in formulations still made by compounding pharmacies).

Because of this, authors have proposed utilizing DMSO mixtures to significantly enhance the efficacy of ophthalmologic medications, reduce the toxicity of existing medications applied to the eyes (by lowering their total dose), and make it possible to avoid needing to inject medications into the eyes as data suggests DMSO will facilitate the penetration of key eye medications (eliminating the need for painful injections)—all of which is transformational for ophthalmology.

Note: while adverse reactions have not been reported, as many interactions are still not fully understood, the DMSO community presently advises waiting at least 2 hours between an ophthalmic medication and applying DMSO to the eyes.

Eye Protection

One of DMSO's most well documented properties is its ability to protect tissues throughout the body from a variety of otherwise lethal stressors, such as heat, cold, radiation, poisons, and a loss of blood flow—which is a key reason why it produces such remarkable results for strokes and other central nervous system injuries. Similar effects have been repeatedly observed with the eyes:

•Injecting 1.5% DMSO into the eyes of rats subjected to 90 minutes of retinal ischemia (via optic nerve ligature) was found to reduce the number of ganglion cells that died,

but not alter internal plexiform layer width, suggesting it offered partial retinal protection from retinal ischemia-reperfusion injuries (which has also been demonstrated in other eye studies).

Note: one reader reported "I got IV DMSO after an optic nerve stroke and I'm pretty sure it saved my eyesight in that eye." Another shared that six weeks after a retinal bleed, that eye had episodes of partial loss of vision ("grey outs") that cleared a few minutes after applying DMSO gel to the eyelid of the affected eye (which makes sense as what she described was most likely due to insufficient blood flow to the eye).

•In mice, DMSO treatment fully protected retinal cells from damage caused by toxic bright light exposure, preserving retinal function and structure (whereas in untreated mice, most retinal cells were damaged or died). A subsequent study corroborated these results and found DMSO's protective effects were enhanced by tauroursodeoxycholic acid (a neuroprotective and anti-inflammatory compound). Finally, a third study from another team corroborated these results (finding a 92-93% decrease in retinal function after toxic light exposures, whereas DMSO treated mice only had a 30-33% decrease) and noted that DMSO was only protective if given shortly before the light exposure (which was corroborated in a fourth study by another team).

Note: a reader who damaged their eyes from excessive sunlight exposure (due to pre-existing inflammation weakening the eye) was able to heal their eyes with DMSO. Likewise, another reader who damaged their eyes by accidentally staring at the sun for too long (presumably due to sun gazing) also healed their eyes with DMSO.

•DMSO was found to protect the lens of rat eyes from photoperoxidative damage (likely due to its ability to reduce oxidative stress).
Note: one reason why DMSO is thought to protect the retina (and treat macular degeneration) is because it is highly effective at reducing the oxidative stress which plays a key role in causing those diseases.

•DMSO, applied to the eyes of mice 8 minutes before X-ray exposure, prevented the cataracts that formed in untreated mice.

Additionally, in much the same way DMSO protects tissue and enhances healing after surgery, it has been reported that DMSO enhances recovery following eye surgeries (e.g., cataract lens placement or LASIK).

Note: in patients with significant brain inflammation (e.g., from a chronic infection causing subacute encephalitis or chronic vaccine spike production within the body), visual issues such as intermittent blurry vision or visual inputs not matching up with other sensory inputs (leading to vestibular symptoms) can occur, as when someone's body is depleted, it becomes a significant energy expenditure for the eyes to track everything.

In these instances, while DMSO can still help, it is important to recognize that an underlying issue exists which also needs treatment (which in many cases systemic DMSO can be a part of due to its neuroprotective qualities). For example, one reader shared that after his dog developed a variety of vestibular neurological issues (likely due to mini strokes), small amounts of DMSO and magnesium instantly treated the dog's uncontrolled eye movements (along with rapidly improving a variety of other neurological deficits).

Peripheral Eye Issues

> My mother (100 yrs old) fell three weeks ago. When she fell, she broke her nose and fractured a couple of orbital bones-one around each eye-which resulted in terrible bruising due to her blood thinner medication. She spent 6 days in the hospital and my sister and I visited her everyday. Each time, my sister would apply DMSO cream to her facial bruises. Due to this fall, her bruises were almost black the first day. The 2nd day, they were dark purple. The 3rd day it was just remarkable-her bruises were starting to fade! Going from purple to that greenish yellow that we've all seen. Three weeks later, she barely has any bruising left.

Hundreds of studies have shown that DMSO rapidly heals musculoskeletal injuries, relaxes muscles, and reduces skin inflammation (hence curing a variety of dermatologic conditions). Because of this, DMSO is well suited for treating a variety of

conditions around the eye. However, as there are so many different applications of DMSO, very few publications have directly assessed this application. In those that did:

•DMSO has been combined with povidone-iodine (PVP) to treat inflammatory eye conditions, and in a retrospective study of 17 patients with blepharitis (eyelid inflammation), all 17 patients had a partial or complete response to DMSO and PVP after 4-6 weeks, and no adverse events were reported.
Note: in rabbits, 44% DMSO combined with 0.5%-1.0% povidone-iodine, applied 4 times a day to their eyes for at least 14 days was found not to cause any adverse effects in the eyes, surrounding skin, or systemically.

•In one case report, a 95 year old woman with blepharitis from a Demodex infection (which had not responded to other treatments) a similar improvement was seen at one week and one month after using DMSO-PVP.

> I use DMSO with coconut oil and tee tree to kill demodex and dissolve cataracts (most likely made worse by demodex poop)—which has made my vision better.

•In another case report (likely for one of the 17 patients), a 78 year old man with rosacea and blepharoconjunctivitis who had not responded to a dozen different treatments was given DMSO-PVP for his eye, within hours had remarkable improvements, a significantly greater improvement at a one-month follow-up, and no adverse events.

> I was gonna give this a couple weeks but I'm having such amazing results from using DMSO around my eyes that I wanted to get in touch. I have a really complicated eye history [including] having blepharitis many times that left my eyelids inflamed for a very long time. I've now had inflammation on my eyelids for over a year. It's almost gone in [after] about a week of DMSO.

•In children with eyelid styes, DMSO was found to reduce swelling and pain.

•Finally, a Russian study also found that DMSO treated inflammatory diseases of the eyelids.

Likewise, many readers have reported DMSO treats issues around the eyes (e.g., three said it helped or cured their blepharitis[1,2,3] and two said it completely eliminated the psoriasis around their eyes[1,2]). Likewise, mirroring the Russian study, three readers[1,2,3] reported DMSO rapidly eliminated (typically within a day) styes which had resisted other treatments:

> After reading your MidwesternDoc's article I tried DMSO on a huge eye stye my husband has, a recurring issue that no doctor had been able to fix. In less than 24 hours it went from the size of a large pea to near gone. One small dab on a q-tip. Amazing.

Note: I have also read reports of DMSO treating pustules inside the eyelid, and one reader shared it treated milia (tiny hard white cysts) around the eyes.

Superior oblique myokymia is a rare eye condition (linked to concussions) where the superior oblique muscle will spontaneously rapidly twitch, which can be quite dangerous while driving as it significantly distorts what you see (e.g., a reader with it reported it causes double vision)—but unfortunately, it has no good treatment options. The reader with it (who also experiences tired, watering, and burning eyes from the spasms) reported that DMSO has been invaluable because it relaxes the spasming muscle, and that the spasms have gradually become rarer with continued use.

Corroborating these results, one doctor (James Miller) who routinely uses DMSO with patients shared with me that he has also had DMSO cure chronic eye twitches. Likewise, members of the DMSO community have reported that applying DMSO before eye exercises greatly enhances their effectiveness as its muscle-relaxing properties help loosen overstrained or hardened eye muscles, enhancing the effectiveness of exercises to improve eye muscle mobility.

Note: I believe these cases are extremely important for understanding how DMSO heals the eyes, as overactive (e.g., tight) muscles around the eye underlie many different eye issues, but unlike those visible twitches, their role in contributing to eye issues is rarely recognized.

> I have used DMSO even on the lower lids of my eyes, at 25%, with astonishing success in treating a chemical/heat burn [hot tar while fighting a fire] that troubled me for about ten years AND IT RESOLVED ABRUPTLY.

DMSO is also highly effective for burns, and it is one of the conditions DMSO appears to most consistently address (e.g., I have received a large number of reports from readers who stated that they had rapidly treated burns from a variety of sources), including being used for burns around the eyes.[1,2]

> I removed a pedicle near my left eye and DMSO smoothed the remaining area perfectly.

Finally, readers also reported that other common skin issues near the eyes also respond to DMSO (e.g., DMSO eliminating skin tags from the eyelids, DMSO helping bags and wrinkles under the eyes improve, and DMSO treating cellulitis around the eyes).
Note: DMSO has also been shown to be highly effective for improving hair growth, and one reader reported that applying DMSO near their eyes lengthened and thickened their eyelashes.

Corneal and Conjunctival Disorders

DMSO's therapeutic properties and its ability to concentrate within the cornea make it well suited to healing issues at the surface of the eyes, particularly since DMSO, being an acetylcholine esterase inhibitor also stimulates parasympathetic activity (which increases tear secretion) and reduces duct inflammation or obstruction (also increasing tear secretion).

Because of this, one of the most common uses of DMSO is to relieve eye dryness. For example, with readers here:

> I have suffered from severe dry eye for years. (I've had to have Meibomian Gland Probing done twice for my condition, in addition to numerous other treatments). I am having a [very] positive experience using daily DMSO eye drops, I find I need

> much less commercial eye drops and I am very hopeful about the continued benefit of the DMSO drops.

> It takes care of my chronic dry eyes for 6 to 8 hrs.

> I no longer have dry eye syndrome in that eye.

> I've been using DMSO in my eyes for more than a year now. Slowly increasing the strength. Even at [low doses] it's life changing! No more dry eyes or eye infections. Better vision. For anyone who is hesitant, start slowly and "see" 🤣 the amazing results.

Note: there are many other similar reader reports[1,2,3,4,5,6,7,8,9,10,11] (including eye dryness from Parkinson's). Likewise, I've come across reports of individuals with other causes of significant eye dryness which responded to systemic DMSO administration (e.g., a patient with Sjögren's syndrome whose symptoms, including the eye dryness, fully resolved after IV DMSO).

Likewise, more severe issues at the surface of the eye also have responded to DMSO:

> Because I struggle with mast cell activation disorder and the brittle cornea problems that go with that, I have been making [combination] eye drops for myself. The DMSO always stings, bc I have nearly no cornea between my nerve endings and the rest of the world; there's no getting around that. But I use these drops several times a day, b/c I have no corneal interface for tears to cling to, and the floaters I couldn't see through or around, b/c they're always so numerous and large, are steadily dissolving the last two weeks I've been using these drops, and I can see better.

> For decades, I experienced mysterious, intermittent left eye pain that could only be relieved by immobilising the eye, and sometimes only by also mobilising myself in an upright position. The pain contributed to regular severe sleep disruption. [I then saw a lot of doctors, received many diagnoses, and tried many standard and integrative treatments—none of which worked, and finally learned] they could see

> evidence of a past trauma in the eye with an oval shape [possibly due to a piece of glass from a broken fluorescent tube was lodged in my left eye for a couple of days in 1974]—but still could not provide anything helpful. Three months ago, I started with DMSO eye drops [and] was getting the best pain management ever! Sleep improved and I reduced them to once a day and when needed for pain relief. A Schirmer Test this week showed tear production in the left eye at 7. Previous high was 4. The right eye had always been above 10 which is considered healthy. Thank you AMD!

> I was having problems with my vision, very blurry, sometimes double vision, but it was intermittent. I went to an eye doc and she said my eyes were quite dry and irritated (probably from previous chemotherapy). I drank DMSO in a glass of juice, and within an hour my vision had improved. I did that about 3 more times, and my vision was totally normal again.

Note: I have also received reports of DMSO rapidly treating conjunctivitis, a conjunctival cyst, and a pterygium (which incidentally resulted from applying DMSO to the neck), and also came across a German report of it treating a pinguecula.

DMSO's unique properties (e.g., its ability to remove edema and pathologic protein deposits) can also address a few challenging corneal issues for which there are currently no viable therapeutic options. For example:

•Gelatinous drop-like corneal dystrophy is a rare genetic eye disorder where amyloids build up just beneath the corneal epithelium (progressively clouding it, and impairing vision) that is difficult to treat (requiring corneal transplantation once it progresses—which can then be followed by recurrences). Extensive research shows DMSO eliminates amyloids, and in one case report, DMSO was found to eliminate the amyloid which had accumulated after a corneal transplant.

•One of the early DMSO studies repeatedly found DMSO treated corneal edema.

•Likewise, three readers shared they used it for Fuch's dystrophy (an incurable eye disorder where the cornea swells with fluid, causing gradual vision loss). Of them, one

reported it significantly reduced corneal edema and improved their vision, one reported the same (but did not have a formal diagnosis), while a third reported they'd begun trying it, but weren't yet sure if it was helping.[1,2,3]

• Additionally, I have read reports (but not received any directly) of DMSO removing visible corneal deposits.

Finally, in both the reports I received and those I've seen throughout the DMSO community, users frequently report that DMSO "cleans their eyes out" and makes vision much sharper and clearer. This likely comes from DMSO removing insoluble protein aggregates (from the cornea, lens, or vitreous) or it reviving retinal function—something **DMSO is uniquely suited to do in a non-invasive manner**. Unfortunately, in many cases, the reports don't provide enough information to pinpoint exactly how each eye's clarity improved.

Note: I have also read reports of DMSO healing debilitating corneal abrasions when nothing else could help.

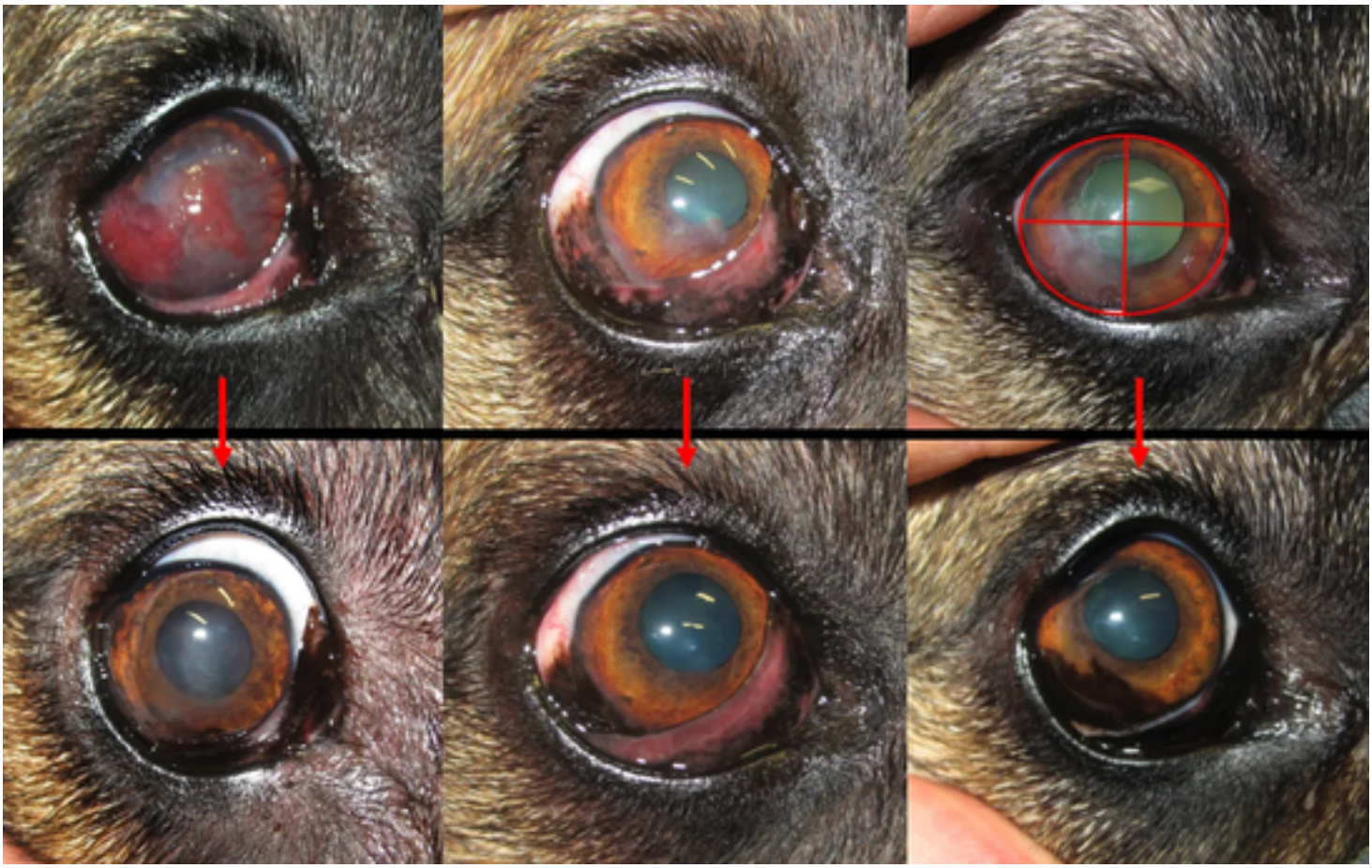
Inflammatory and Infectious Conditions

DMSO's potent anti-inflammatory and antimicrobial properties make it well suited for treating a variety of conditions throughout the eye and often to do so in a safer and more potent manner than existing treatments (e.g., in one clinical trial, 30% DMSO was found to have therapeutic anti-inflammatory effects on the eye similar to 0.01% dexamethasone).

In turn, numerous studies show DMSO eliminates challenging inflammation and infection on the surface of the eye. For example, DMSO has repeatedly been shown to be an effective treatment for chronic superficial keratitis (CSK), which over time, can reduce eye inflammation without any adverse effects to the corneal epithelium[1,2] and in many cases, to be a superior CSK treatment to steroids.[1,2] For example:

•In dogs with CSK, 50% DMSO combined with dexamethasone or prednisolone was found to be a much more effective treatment than either alone (e.g., it effectively reduced corneal inflammation and improved corneal transparency).[1,2,3,4,5]

•In dogs, DMSO has also been shown to safely treat CSK in combination with cyclosporine. Significant benefit has also been seen from combining DMSO with both dexamethasone and cyclophosphamide (e.g., a 77.9-90.7% reduction in neovascularization, a 45-51% reduction in corneal surface inflammation, 72.9% of corneas had a reduction in pigmentation, 74.3% had an increase of transparency, and 95.4% had a repigmentation of the nictitating membrane).



•In dogs with CSK, five weeks of 50% DMSO 0.2% tacrolimus eyes drops was found to reduce the inflammatory infiltration and neovascularization of the cornea (reducing the affected area from 70% to 44% in one eye and 58.9% to 38.6% in the other), while in the 32 cases where corneal pigmentation had occurred, in 14 cases it reduced, while in 16 it continued to increase.[1,2]
Note: that author has also used picrolimus with DMSO to reduce CSK.

Likewise, other types of inflammation at the surface of the eye also respond to DMSO:

•In calves with infectious keratoconjunctivitis (significant bacterial eye infections), DMSO combined with penicillin was found to be an effective treatment and as effective as dexamethasone combined with penicillin (but without the risks seen with using steroids in those applications).

•Topical DMSO and itraconazole was able to resolve chronic (fungal) keratomycosis in 80% of treated horses.

Note: in another case report, a horse with fungal ulcerative keratitis fully recovered 30% DMSO and 0.2% fluconazole.[1,2]

Studies have also found DMSO treats inflammation deeper within the eye:

•In a large study 4 severe cases of episcleritis (which had previously failed to respond to the use of corticosteroids) all responded to topical DMSO, 4 cases with chronic corneal edema all exhibited a partial improvement from DMSO and positive but much more variable results were seen for other types of eye inflammation.

•One study induced uveitis (inflammation of the middle layer of the eye) in dogs, and found that subsequently giving DMSO decreased intraocular pressure and fibrin production—suggesting DMSO has therapeutic value in this condition.

• In a Russian study, DMSO (with its delivery was augmented by ultrasound) was found to treat endogenic iridocyclitis (inflammation around the iris).[1,2]

Readers, in turn, have reported similar results to everything found in those studies. For example:

> I used to struggle with uveitis and for years had synechia (**adhesions**) in my eyes related to my (now past rheumatoid arthritis). I used DMSO for a couple of months after your initial articles and haven't had any bouts of uveitis since, despite engaging in the reading style that often triggers synechia induced spasms (and then iritis). Since all my symptoms have resolved I stopped using steroid drops and haven't had anyone look again for synechia that I finally don't feel anymore... doesn't seem like much of a point. I read for a living so I really enjoy using my eyeballs better — James Miller MD

Note: DMSO's potential ability to remove adhesions in the eye (like it does elsewhere in the body) may underlie some of its abilities to improve eye health.

> I had been dealing with recurring iritis (inflammation of the iris) in my right eye for about a year and a half. My ophthalmologist had prescribed prednisolone (steroid) drops which cleared up the symptom of cloudiness in my vision in that eye but it would always recur in a week or two. I decided to try 3% DMSO drops (based on reading AMD on DMSO). No burning at all. I did the drops for about a week about 2 months ago. Iritis is gone now. I am amazed that such a high dilution seems to have worked and that the improvement seems to be permanent. Just my personal experience.

> DMSO works better than dexamethasone for uveitis. It saved my sight and normalised my eye pressure.

> My autoimmune diseases and other medical issues that have definitely improved with DMSO oral and topical use [including] symptoms related to: myasthenia gravis (ocular and generalized) and ankylosing spondylosis and associated uveitis

Note: uveitis normally is triggered by something else (typically an inflammatory disease, like in James Miller's case, or an infection). Somewhat extensive testing to identify the cause (which is often not done) can be quite valuable both because it can prevent the treated uveitis from recurring and because uveitis can often provide a critical early warning of another consequential disease process (many of which DMSO can treat). Furthermore, untreated uveitis can lead to complications like cataracts, synechiae (adhesions) that may cause glaucoma, or vitreous changes and floaters.

Finally, while DMSO's ability to synergistically eliminate with antimicrobials has been extensively studied, relatively few eye studies have been conducted (e.g., beyond the infectious keratitis cases detailed above, I only know of two other studies—one where it was combined with 5-IDU to treat ophthalmic herpes zoster, and one where, in combination with antibiotics, it was shown to eliminate bacteria isolated from the eyes of patients with anti-inflammatory diseases).

However, many readers have reported success in treating eye infections. For example, two readers reported it treating human eye infections[1,2] and preventing recurrent eye infections, two found it treated shingles in the eye[1,2] (which has a real risk of making one become blind). Likewise, in animals, one used it to treat a rabbit's eye infection which didn't respond to antibiotics while another used DMSO with colloidal silver to heal their cat's eye.

Note: there have also been many cases (described below) where a seriously wounded and likely infected eye was saved by DMSO.

Cataracts

Cataracts frequently result from damage to proteins in the eye lens, which leads to them misfolding, then losing their solubility and aggregating, at which point they shift from being transparent to blocking light. As DMSO stabilizes proteins and eliminates protein aggregates (along with facilitating regional drainage), it is hence uniquely suited to dissolve and eliminate cataracts.

In turn, multiple physicians have reported that they have treated cataracts with DMSO[1,2] I've come across reports of German ophthalmologists treating cataracts with DMSO, and numerous readers have shared they successfully treated their cataracts with DMSO.[1,2,3,4,5,6,7,8,9,10,11,12] along with one who found DMSO prevented their cataracts from recurring,[1] and two who treated cataracts in their dogs.[1,2]

From all the reports I've received, DMSO seems to be around 50% successful at eliminating cataracts, but from the available data, I have not been able to clearly determine:

•Which types of cataracts respond best—or don't respond—to DMSO as the composition of cataracts varies and variability exists in the DMSO solubility of cataract components (and likewise, significant variation exists in the age and location of cataracts).

•How different percentages of DMSO influence the likelihood of successfully removing different types of cataracts.

•How important it is to combine something else with DMSO to eliminate cataracts, as I have seen cases where DMSO alone dissolves them, cases where DMSO with something else does, and cases where something else (that no one has combined with DMSO) also dissolved them—and there is simply not enough data to determine the relative efficacy of each approach. Likewise, it's entirely possible that certain types of cataracts require DMSO combinations while others do not

Some of the reports I've received are as follows:

> [4 months of DMSO] saved my husband from cataract surgery.

> I have a diabetic dog that went blind from cataracts and have been giving him DMSO eye drops and it has cleared most of his eyes up and he can see again!

> My January eye checkup showed cataracts, early stage glaucoma and peripheral vision loss. Monday's (July) follow up all in normal ranges! She said keep doing what

> I'm doing.

> I have been using DMSO eye drops for cataracts for several months and have seen a noticeable improvement in my vision.

> My eyes seem to be clearer and my vision sharper [after 10 months of DMSO use].

Note: I also received a report from someone who had cataracts in both eyes, where one eye responded to DMSO but the other did not.

Presently, I know of only one study that assessed whether DMSO can eliminate cataracts—one in diabetic rats where DMSO was found to significantly slow cataract formation.

Note: while I am generally opposed to surgeries unless absolutely necessary due to the harms they frequently cause and have seen also seen issues emerge with cataract surgeries and would personally do what I could to avoid them, I also need to emphasize that cataract surgeries have arguably the best risk/benefit ratio of any surgery in medicine and that if they are needed, the earlier they are done, the greater their risk/benefit ratio (as they immediately directly improve quality of life, and the older you are, the riskier any surgery is).

Finally, it is important to remember that steroids have been found to increase the risk of cataracts by 245-311%—with 15% of users reporting this side effect (along with increasing the risk of ocular hypertension or open angle glaucoma by 41%).

Vitreous Disorders and Floaters

> I now have symptoms of a vitreous detachment so this week I began a DMSO/saline solution 2 times a day and noticed less floaters and flashes giving me clearer field of vision. Amazing.

The area behind the eye's lens (the vitreous humor) also can have insoluble protein aggregates that form that block vision and which appear to be much more responsive to DMSO.

> In one of the ladies in my trial for cataracts, while it's too soon to say for that, her floaters that were present have completely vanished. So far, we are definitely seeing the greatest response to floaters.

As such, I have received many reports from readers of floaters being eliminated[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17] including many instances where it was not the primary goal (but rather something they just noticed happened).

> My eye floaters are gone 🤷.

Note: I've also come across many foreign reports from patients and physicians of DMSO eliminating vitreous opacities (which are essentially the same thing as floaters).

Likewise, highlighting DMSO's affinity for floaters, I've encountered cases where applying DMSO outside the eye (e.g., the neck or temples) eliminated their floaters. *Note: those cases are my basis for suspecting DMSO also concentrates in the vitreous portion of the eye.*

Finally, while I am unsure why floaters respond so much better to DMSO than cataracts, my guesses (most likely to least likely) are as follows:

- Floaters are composed of proteins which are more DMSO soluble.
- By being free floating and moving, floaters are much more accessible to DMSO.
- The lens blocks DMSO's penetration, hence reducing how much DMSO can reach things within it.
- DMSO's ability to reduce inflammation can dynamically affect and reduce the production of floaters.
- Routes of drainage are more accessible within the vitreous humor.

Note: it is also possible that some of this could be explained by a reporting bias.

Lastly, starting around age 45, the water within the vitreous portion of the eye gradually changes from a gel to a liquid state, resulting in the eye significantly shrinking and issues like vitreous detachments becoming more common.[1,2,3,4,5,6,7,8]

As DMSO stabilizes gels and suspended proteins, it has been hypothesized that a key reason why DMSO heals the eye and counteracts its aging is because it effectively "rehydrates the eyes." Likewise, I suspect this is a key reason why DMSO also counteracts many other aspects of aging (as typically the body "dehydrates" with age, becoming more frail and less functional) and DMSO greatly increases fluid circulation throughout the body (as the body relies upon protons released from water gels to facilitate fluid circulation in areas lacking pumps).

Note: at lower concentrations, DMSO stabilizes these gels, while at higher concentrations it destabilizes them. While the threshold for this varies, in all the studies I've looked at, it is much higher than what DMSO will reach within the eyes or body.

Reversing Blindness

One of DMSO's most extraordinary abilities is restoring the ability to restore lost sight. Previously, I have shown how DMSO can restore long-lost function in the brain, spinal cord, and internal organs (such as after a severe injury), and I would argue that the same process is at work within the eye—but is more noticeable, as people immediately recognize their vision returning.

> I am 75 and have been blind in one eye since birth, blindness caused by karma and a cataract according to my latest eye specialist. I started using DMSO about 8 months ago to (successfully) help me with sinus issues. After a couple of months of topical and nasal spray application I noticed I could see more than ever before in that eye. Previously I was able to perceive light and dark shapes, no detail, no color, now I see colors and a lot more detail. In good light, I can walk around the house using that eye only and see well enough to safely negotiate doors and avoid walking into things, something not possible previously. I would estimate that I now have 15 to 20 percent vision in that eye and that continues to improve slowly. I doubt that vision in that eye will ever be particularly useful to me but it is miraculous nonetheless.

In turn, over the years, many similar reports to Murray's have been reported. For example, a 1980 book cited the following patients of Stanley Jacob:

•A man who had been blind for more than 30 years after having dynamite explode in his face who started seeing flashes of light after applying DMSO to the head.

•A man who lost sight in the right eye (along with other functions of the eye like focusing) and gradually lost it in the other after an almost fatal impact by an automobile while skating down the road. After trying DMSO for hair loss, he noticed a sensation in the back of his right eye, so Dr. Jacob decided to apply DMSO to that eye, eventually settling on a high concentration (which stung for several minutes, caused tears, and left the eyes bloodshot for about 20 minutes). After this, sight rapidly returned to the right eye (as demonstrated in a blindfold test), along with him **regaining the ability to see color** (something his good eye had lost since the accident).

•A man who had been blind for many years in one eye (only able to distinguish light and dark) regained his sight in that eye with DMSO (e.g., he demonstrated this by walking unaided in public areas and describing objects and events while his good eye was covered).

•A man who was almost blind (leading to him being entirely dependent on others like his wife, to take him anywhere, cut his meat, or keep his house clean), after a year on DMSO regained his sight and no longer needed assistance to do anything (which was of great relief to his family).

Note: these results led Jacob to test DMSO on a series of patients with incurable blindness. Sadly, in many cases (which ophthalmologists had pronounced incurable), despite remarkable results, the ophthalmologists tended to insist there was either no improvement or that the improvement was just a coincidence—much in the same way Murray's ophthalmologist had no interest in learning how he'd miraculously fixed his eye.

Additionally, I have received other reports of sight being restored due to other causes of blindness.

> In the commercial thoroughbred industry, DMSO is regularly used, and is considered a wonder drug. Case in point - I had a filly in training that reared up and

> flipped over backwards onto the asphalt, (with me on her, which is another story) hitting her head so badly she knocked spines off 2 vertebrae, and got up, completely blind. The vet came, and we gave her massive doses of IV DMSO, 10 days in a row. 2 months later, that filly not only regained her sight, she went back into training to become a race horse.

> My 84 year old mom suffered a grade 3 brain aneurysm and associated subarachnoid hemorrhage [and I was able to discretely give her DMSO right before she went to the hospital and a few times there]. In two weeks, she has already made nearly a complete neurological recovery, during which she made several sudden improvements that seem to come from her brain seeming to re-index several visual interpretation skills (distinguishing shadow from object or stain), or motor skills.

> We have had a few cases of remarkable resolutions of glioblastomas from mebendazole. In one, the patient was virtually blind in one eye due to the tumor compressing the optic nerve and after the tumor fully disappeared following eight months of treatment, the blindness remained. I taught him about DMSO eye drops, and **the very next morning**, his wife texted me and said **his vision had returned to normal** after using the drops.

Note: a year later, that patient is still cancer free and fully able to see.

Finally, in addition to Dr. Jacob's case, I have received one reader report of DMSO curing colorblindness:

> I couldn't tell pink from orange or red differently. They all looked almost the same in a game with colors [and I] was almost always wrong. And got laughed at a lot. Nine months ago I started putting DMSO in my eyes one drop 3 to 4 times a week. I now see the colors very well. I did an eye exam and I usually read the middle line, I read the bottom line with each eye. Thanks for having an article on DMSO and the eyes

Note: I suspect this benefit would not be seen for many types of colorblindness.

Restoring Visual Function

Over the decades, I have come across numerous methods to treat macular degeneration, something both considered impossible to heal within the conventional medical paradigm and unmistakable as the improvement (regaining lost sight) is immediately evident to all parties involved.

From that exploration and working with the doctors who repeatedly were able to restore their patients vision, I found their approaches typically did one of the following:

•Found a way to significantly increase the circulation to and from the eye, and if applicable, its drainage. For example, in Chinese medicine, blood stasis (which I attribute to poor zeta potential) is thought to play a major role in macular degeneration, and there is quite a bit of data showing that specialized acupuncturists can treat (dry) macular degeneration with this approach.

•Supplementing the essential micronutrients for the eyes (the eyes have a significant energy and nutritional demand, so nutritional deficiencies can be quite impactful for them).

•Using some type of energy input to either neurologically stimulate the eye or awaken dormant cells (which were effectively trapped in the cell danger response).

Note: in many cases a combination of the above was used.

As DMSO also treats macular degeneration, I quickly noticed that it can do most of what the other approaches I've come across do too (e.g., increase and stabilize the eye's entire circulation or reactivate dormant neurons). Most importantly, studying this subject completely changed my understanding of nutrition.

Medicine revolves around providing chemical inputs to the body and works under the assumption they diffuse throughout the body, so when an insufficient amount of the needed chemical is present to achieve the desired effect, this is addressed by "loading

the reaction" by providing a high enough dose to the body so the desired concentration can be achieved by what ultimately diffuses to the target site. Unfortunately, this often requires high doses to be utilized which also diffuse into non-target parts of the body at levels that create unwanted toxicity in those regions.

DMSO, due to its ability to increase the transportation of substances through the body, particularly into areas drugs typically have difficulty reaching (which typically require even higher loading doses to achieve the drug's desired effect), turns this paradigm on its head. By facilitating the ability of drugs to reach hard to access parts of the body (e.g., the bones or brain), much lower (less toxic) doses can be used. Likewise, by increasing their ability to penetrate targets (e.g., cancer cells or microorganisms), DMSO dramatically enhances the potency of target therapeutics, particularly against resistant cancers or infections.

With micronutrients, I would argue a similar paradigm exists, as on one hand, the standard approach to addressing nutritional deficiencies is to "load the reaction" by giving high enough nutrient doses to ensure enough are present to reach the target area. However, while this works in many cases, the underlying issue is often poor circulation to the target area; as such, I've seen numerous cases where a functional nutritional deficiency or an enlarged gland corrected itself once blood flow was restored to the affected area.

Likewise, with DMSO, I've come across numerous things suggesting the same such as:

•Enlarged glands are often reported to shrink after being exposed to DMSO, particularly when DMSO is mixed with an essential nutrient for that gland (e.g., iodine).

•One study found DMSO prevented the cardiovascular defects (e.g., heart enlargements) otherwise seen in mice fed copper deficient diets.

•I have seen a few cases where functional nutritional deficiencies improved after a key circulatory obstruction within the gastrointestinal system was corrected.

•We have seen rapid improvements from nutraceuticals combined with DMSO that are not seen with the nutraceutical alone (even with IV or IM administration), suggesting part of the benefit is from DMSO's transporting actions allowing the nutrient to reach somewhere it could not otherwise access. Examples include rapid increases in energy with DMSO+B12, DMSO+vitamin C clearly improving neurologic conditions and DMSO and magnesium rapidly improving musculoskeletal injuries.

•One reader shared that they had recurring blepharitis and meibomian gland dysfunction which had **not** responded to omega 3 supplementation (something that is well recognized to treat dry eyes and meibomian gland dysfunction). Once they took DMSO, there was always a temporary improvement (after which it recurred), whereas when they did both together (krill oil plus DMSO) it permanently resolved.

•To quote James Miller: "I've had countless patients who were already doing all the 'right' things with nutrition and weren't getting better with their pain/autoimmune problems, and then they did well after adding DMSO."
Note: many therapies (e.g., nutritional ones) that used to produce remarkable results now do much less. I eventually discovered many pieces of evidence indicating this loss of therapeutic efficacy, along with the widespread increase in chronic illnesses, resulted from ever-increasing fluid stagnation within the population (much of which is due to vaccination).

I mention all of this because I strongly suspect a key reason why DMSO helps the eyes is due to it increasing circulation to the eyes, thereby allowing enough of the nutrients already present in the body to reach the eyes (rather than that only being possible by significantly increasing the total amount of the nutrients in the blood stream)—and likewise that if one's diet is seriously deficient, the vision benefits individuals frequently report from DMSO may not occur.

Note: DMSO's ability to reduce inflammation, regenerate blood vessels and endothelium, dissolve vascular deposits, and stabilize blood cells has also been proposed as the mechanism behind its reversal of vision loss. Additionally, sensory organs' exceptionally high metabolic demands render them particularly vulnerable to microcirculatory interruptions (which rapidly

impair their function). As such, DMSO's ability to greatly improve microcirculation is often cited as an explanation for why DMSO's potent enhancement of microcirculation so effectively restores sensory performance.

Lastly, in macular degeneration, the buildup of waste from retinal cells (which are shed and replaced daily) plays a major role. Normally, a layer of cells behind the retina (the retinal pigment epithelium [RPE]) absorbs and breaks down this waste, but when it weakens, the waste debris builds up and kills retinal cells. DMSO likely prevents this source of vision loss both by directly removing the debris from the retina and possibly also through increasing the activity of one of the enzymes used by RPE cells to break down debris.
Note: one subset of retinitis pigmentosa (comprising around 5% of cases) results from a genetic inability of the RPEs to properly clear waste products.

Retinal Diseases

> My son has retinitis pigmentosa. He uses DMSO eyedrops. They help his [eye's] field of vision.[1,2]

Retinitis pigmentosa (RP) refers to a group of genetic disorders that cause gradual vision loss (starting in the periphery). It typically results from rod cells in the eyes not secreting a substance that prevents cone cells in the eye from dying (through apoptosis). It affects 1 in 4,000 people and is thought to be incurable—with the exception of one subtype of RP (comprising between 0.3-1.0% of cases), which has a $850,000 gene therapy that works about half the time (although others are in the pipeline).

Note: while not curative, high doses of certain common nutrients slow RP's progression—and their enhanced retinal delivery may, in part, account for DMSO's ability to treat RP.

Since RP is "incurable," it immediately caught a few doctor's attention that their RP patients had their vision improve while receiving DMSO for something else. This

prompted a series of clinical studies, a preliminary 1973 investigation that found DMSO improves RP.

That author then published a larger 1975 study where he shared:

> When his DMSO treatment was started (February 10, 1972), this patient could see hand motion only with his right eye, and had a visual acuity of 20/200 (Snellen) in his left eye. Five days later (February 15, 1972), his vision was measured as 20/70 + 1 in the left eye, and he could count fingers at 5 ft with his right eye. Three months later, his visual acuity was 20150 in the left eye. This patient has continued his treatments daily, except for a 1-week trial interval without DMSO. He noted that his vision began to get worse during this interval, and when he restarted treatment, his vision returned to the level he had just before discontinuance. His most recent visual acuity measurement (January 2, 1974) is still 20/50 in the left eye, and he is able to count fingers at 6 ft with his right eye.

Following this, 50 more patients with RP or macular degeneration received DMSO applied to the eyes, of whom 22 had improved visual acuity, 9 had improved visual fields, and 5 had improved night vision, only 2 continued to worsen, while the rest noticed no changes in their vision (which could potentially mean DMSO stopped the degenerative process). The author, in turn, suspected that DMSO was helping here by rescuing dormant cells in the eye which would otherwise eventually die (mirroring what I have come to believe is a key therapeutic effect of DMSO).

To evaluate for toxicity, the eyes were examined through serial fundus photography and slit lamp photomicrography, and no adverse tissue reactions were noted. Patients often reported temporary stinging (usually 20 to 30 seconds) and occasional burning and dryness of the skin of the lid.

Additionally, patients in this study reported a “glare or blur effect” in their vision, often accompanied by increased sensitivity to light (photophobia). This typically lasted for a few days to weeks, after which it disappeared and was replaced by improved

ability to get around at night and improved visual acuity, experienced as better perception of contrast.

Note: a follow up study was unable to detect a clear benefit for DMSO in RP (but did find a complete lack of toxicity from applying DMSO to the eyes).

Animal studies have also shown DMSO prevents retinal vision loss:

•In a 2025 study, very low doses of DMSO (0.01% in drinking water) protected retinal cells in mice engineered to model retinitis pigmentosa, preventing thinning of the outer nuclear layer, whereas untreated mice showed significant retinal thinning.

•A 2021 study of retinitis pigmentosa model mice found that intraperitoneal DMSO prevented the progressive decline in retinal function from day 4 to 23 of life, placebo treated mice showed a 42% decrease in scotopic a-wave amplitudes, an 8% decrease in photopic a-wave amplitudes, and a 20% decrease in photopic b-wave amplitudes compared to normal mice without retinitis pigmentosa. In contrast, DMSO-treated mice had a 107% increase in scotopic a-wave amplitudes, a 65% increase in photopic a-wave amplitudes, and a 56% increase in photopic b-wave amplitudes compared to normal mice.

•Very low doses of DMSO (0.01%) were administered in the drinking water of 3-4 month old mice genetically engineered to develop Alzheimer's disease. This corrected prodromal visual performance deficits, specifically improving contrast sensitivity, and restored normal external limiting membrane-retinal pigment epithelium (ELM-RPE) thickness in the superior retina—potentially due to DMSO mitigating early retinal oxidative stress. Additionally, DMSO did not correct supernormal mitochondrial configuration within photoreceptors (MCP/AR) or retinal laminar thinning, indicating that some aspects of photoreceptor mitochondrial dysfunction or damage may be unresponsive to DMSO or require earlier intervention or higher doses.[1,2]

•In a 2025 study of rats with diabetic retinopathy, 10% and 50% DMSO (particularly 50%), administered via subconjunctival injection, significantly improved the retina

compared to controls (specifically causing higher B-wave amplitude in electroretinography, enhanced flicker responsiveness, and increased retinal thickness).

Many DMSO users with a variety of retinal diseases have reported significant visual improvements (e.g., I've come across reports of it improving vision sharpness and color perception that had been lost due to multiple sclerosis).

Most commonly, improvements from macular degeneration are reported. For example, one author cited a case of a 90 year old man who was unable to read (due to macular degeneration and other eye problems) who was treated daily with DMSO eye drops (along with oral DMSO) and after a month, could resume reading his books (along with thinking more clearly, and his whole body feeling better).

Likewise, I've received numerous reports of DMSO improving macular degeneration from readers,[1,2,3,4,5,6,7,8,9] which include:

> I personally have used eye drops for 6-7 years. It has effectively stopped my macular degeneration.

> I use DMSO eye drops for my macular degeneration and it brought my sight from 25/40 to 20/25. The university I go to thinks it is the shot in my right eye all of a sudden working after 4 months.

> Personally I have used dmso eye drops for three years. My retina doc said my scarring is down 50% with my AMD.

> I tested my AMD with an Amsler's chart earlier this year and my left eye showed distorted lines.
>
> I've been using the DMSO eye drops 2x/day since the first of March plus started drinking DMSO (5 ml in 16 oz of distilled water a day) in mid April. I tested my eyes this week with no distortions ...YIPPEE!!

> I [have AMD] and have been using 40% DMSO for 3 wks and I have no more ink blotch hallucinations where my central vision was severely compromised and I

> could not drive at night even with my glasses on. Three weeks later I can drive at night in the rain without my glasses on and I have no more impairment on my central vision

> I now use the drops for my macular degeneration. Have great results.

Note: AMD stands for Age-Related Macular Degeneration. At the time I created the pseudonym A Midwestern Doctor, it was off the top of my head (as I did not intend for this to go anywhere), and had I thought it over, would have chosen a pseudonym with a different acronym.

Additionally, two readers shared that DMSO improved visual loss created by chronic reduced blood flow to the retina (much in the same way DMSO prevents the cognitive decline resulting from chronic reduced blood flow to the brain):

> I went to the optometrist in April, and he informed me that my left retinal artery was thinning, my eye pressure was borderline, and that I had lost some peripheral vision. He told me to repeat the tests in 2 weeks, but was looking at starting me on eye pressure drops. I started taking 15% DMSO for 2 weeks 3x a day. When I repeated the tests, he said I was fine, back where I was 5 years ago, so no eye pressure drops. I am still taking DMSO drops 2x a day.

> I'm trying DMSO for BRVO [branched retinal vein occlusion in eye]. After four years of injections, the improvements afforded by those injections plateaued after two years. Adding DMSO last October both oral and eye drops, caused a slow, but definite improvement. Hopefully, this improvement will progress to the injections no longer being necessary.

Additionally:

- A reader shared that DMSO improved a macular hole.

- I have found reports of DMSO treating macular edema and macular puckers.

•I have found reports suggesting DMSO heals retinal detachments and retinal edema (but was never able to see the actual reports they referred to).

•I have found reports stating DMSO facilitates healing from retinal surgeries.

•A reader shared that "I used DMSO to prevent a migraine as soon as I noticed fractured vision. It worked so fast!" suggesting DMSO can also improve visual disturbances originating within the brain.

Lastly, the formation of new blood vessels, primarily driven by vascular endothelial growth factor (VEGF), underlies many eye diseases (e.g., wet age-related macular degeneration, neovascular glaucoma, and diabetic retinopathy), and as a result, costly injectable VEGF suppressing drugs are commonly used to manage these diseases. DMSO has been repeatedly found to inhibit VEGF and new blood vessels forming (e.g., in corneal cells after acid burns[1,2] or after mechanical abrasions and in cancer cells—which depend upon new blood vessels forming to spread), and has been reported to help both wet and dry macular degeneration.
Note: while it has not been directly tested, there is data suggesting DMSO could be combined with the anti-VEGF drugs (along with many other eye medications) to directly carry them into the eyes, thereby eliminating the need for unpleasant eye injections or potentially dangerous doses—highlighting another area where DMSO potentially revolutionizes ophthalmology.

Glaucoma and Intraocular Pressure

DMSO excels at reducing edema, transporting fluids, and removing obstructions to fluid drainage, suggesting its value in lowering intraocular pressure (IOP) and hence glaucoma, particularly since DMSO has been shown to reduce edema within the cornea.

Note: glaucoma is a result of optic nerve degeneration which causes characteristic (peripheral) vision loss. The actual cause of this degeneration ***is unknown*** *but in many (but not all) cases is associated with elevated eye pressure and slowed by normalizing eye pressure, leading to the*

glaucoma frequently being equated with elevated eye pressure (particularly since every mainstream therapy treats glaucoma by reducing IOP in the hope that will prevent vision loss—which is not successful since factors besides elevated IOP also damage the optic nerve and it can sometimes become an increasingly-invasive uphill battle to keep lowering occular pressures). DMSO is hence beneficial here as it not only can prevent a key cause of glaucoma but also directly counteract the disease process by protecting the optic nerve.

In turn, the only study I know of which directly assessed DMSO's effects on IOP (which was done in rabbits) found that over time, DMSO effectively reduced it:

Solution	Intraocular Pressure (mm Hg) 0–6 Weeks†						
	0	1	3	3-1/2	4	5	6
Fluocinolone acetonide, 0.001%	18.9± 1.4	18.8± .6	17.1± 1.7	16.7± 2.3	17.6± 1.6	17.9± 1.2	16.3± 1.0
Fluocinolone acetonide, 0.001%; DMSO, 15%	18.9± 1.8	19.9± 1.7	21.9± 2.9	21.9± 3.4	21.3± 2.6	17.8± 1.4	17.0± 0.0
Fluocinolone acetonide, 0.025%	19.7± 1.9	18.3± 1.2	23.8± 2.2	19.8± 1.4	20.1± 1.6	17.6± 1.5	16.8± 1.9
Fluocinolone acetonide, 0.025%; DMSO, 15%	20.6± 2.5	19.2± .5	22.4± 4.0	22.0± 1.2	20.4± 2.3	18.1± 1.5	16.5± .9
Fluocinolone acetonide acetate, 0.001%	17.7± .8	17.9± 1.2	23.9± 1.6	22.0± 1.4	21.3± 2.1	17.6± 1.0	17.5± 1.7
Fluocinolone acetonide acetate, 0.001%; DMSO, 15%	17.7± .8	17.4± 1.1	20.6± 2.9	22.0± 2.5	23.3± 2.5	16.0± 1.2	16.1± 1.1
Placebo, DMSO, 15%	18.3± 1.3	19.0± 0.0	20.3± 2.2	19.5± 1.5	19.3± 1.9	14.5± 1.5	14.5± 2.5
Placebo, fluocinolone	18.6± .8	18.5± 1.4	21.5± 3.2	22.1± 1.8	18.1± 1.8	14.0± 2.9	17.5± 2.2
Water control	17.3± 0.0	17.5± .6	19.3± 3.1	19.2± .5	19.1± 1.7	16.5± .5	16.8± .5

Additionally:

•In rabbits, a DMSO-brinzolamide gel designed for treating glaucoma (as brinzolamide is used to lower IOP) effectively reduced intraocular pressure and had no toxicity.

•Numerous studies have found DMSO effectively lowers intracranial pressure (which when elevated, somewhat elevates IOP), and that it does so without reducing cerebral perfusion (making it invaluable in the treatment of traumatic brain injuries).

•The author of the retinitis pigmentosa study also reported that DMSO eye drops once or twice a day were useful for eye problems such as cataracts or glaucoma.

Readers have also reported that DMSO improved or resolved their glaucoma,[1,2,3,4,5,6,7,8,9] including in a cat.[1] Reports include:

> I am 2 months into using 99.9% pharmaceutical grade DMSO for loss of vision due to glaucoma based upon your article. I felt like I had nothing to lose since my vision in one eye was reduced to blurs. I haven't been able to read letters in over two years with that eye. This week, I can now begin to see specific letters and numbers on my computer and the television screen. **I am still amazed that this is real.** Sure, it burns like hell for about 15 seconds. But that pales to the orbital bone pain from one of the 4 glaucoma eyedrops I used multiple times daily ..... not to mention the 2 surgeries.

> I purchased more DMSO cream and a PEMF device for my dad who has severe glaucoma. After a month of using them, his elevated eye pressure reduced to normal without the use of glaucoma eye drops that had been so painful. His ophthalmologist also noticed that his visual acuity had improved by 2 lines on the vision chart. Unfortunately, he later stopped using the DMSO cream and PEMF, and the glaucoma progressed to include corneal sloughing with eye pain. He then reapplied the DMSO cream, and his eye pain from corneal sloughing lessened and became manageable. He has now added 1ml of oral DMSO once a day, and he feels it is helping him.

> The practitioner who taught me about DMSO, which he used to treat world leaders, applied this remarkable natural sulfur compound daily to manage his own glaucoma and over the course of a month, his vision improved significantly.

Note: I have also found numerous reports outside this readership of DMSO helping reduce glaucoma pressure pain rapidly and of eye medications no longer being needed to lower eye pressure (presumably because DMSO addressed the congestion or drainage obstruction that created the elevated intraocular pressure).

Eye Injuries and Trauma

DMSO has been repeatedly shown to protect tissue throughout the body from a variety of injuries, and much in the same way it consistently protects the skin from burns, it does the same for the eyes:

•In rabbits, 3 days, 20% DMSO was found to significantly reduce the corneal opacification and ulcerations that followed alkali burns.

•In multiple studies, DMSO was found to be an effective treatment for corneal acid burns from hydrofluoric acid[1,2] (and also for hydrofluoric acid burns on other parts of the body).

•In another study, DMSO was combined with monomycin to treat corneal burns.

Likewise, many readers have reported that DMSO has healed a variety of eye injuries:

> I was kicked in my eye by our puppy, 50 lbs and strong, did serious damage and was legally blind seeing double, no progress healing for a month. So I found a DMSO recipe and my vision was restored. I'm no expert, it worked for me and quick. I had 80% healing in days, a good part of that in 24 hours. Month previous, as stated, I was not improving at all.

> I have seen it heal the back of the eye

> Many years ago my mother-in-law burst a blood vessel in her eye. After trying allopathic approaches with the MD, we made her [eye] drops containing DMSO. In mere days, the eye returned to normal.

Note: a month ago, a friend injured their eye by cliff jumping from quite a height and not shielding their eye when they hit the water (resulting in the eye being filled with blood). Once my friend decided to use DMSO, we saw the eye rapidly heal and the blood within it leave… after which they repeated the same jump, again did not correctly shield their eye, and then healed the eye again with DMSO.

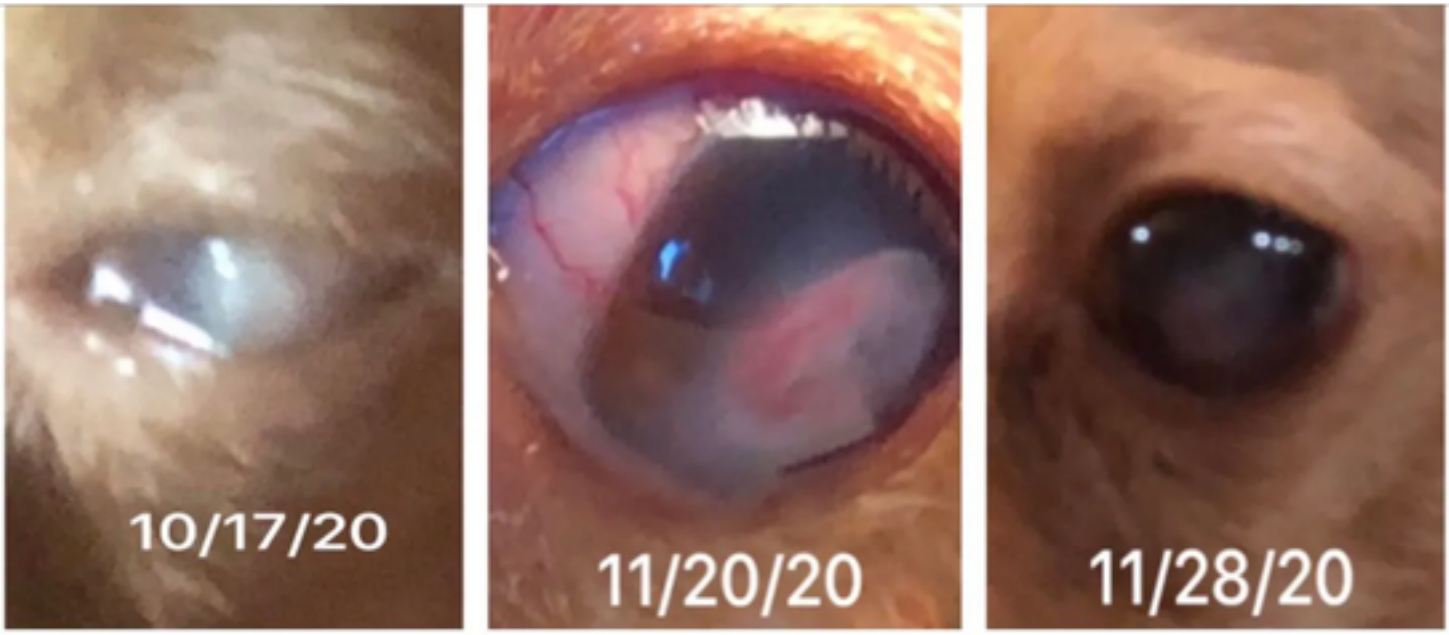
I have also received numerous remarkable reports of pets with injured eyes that would normally be removed instead have a complete recovery:

•This cat had its eye scratched, after which the vet said the necrotic eye needed to be urgently removed. While they raised money for the operation, they tried flushing the eye with DMSO and colloidal silver roughly every hour (which Gerald the cat loved), the eye rapidly improved, and a few days after the initial visit, the vet cancelled the operation and after six weeks the eye was healed.

> Currently treating my Yorkie with eye injury. He is blind in the eye and the eye was dying. Not sure about his vision but the eye is healing. 1st pic before DMSO/castor

> oil drops. 2nd is after 2 weeks use of eye drops. You can see the eye lost pressure in the first photo. The second photo shows an almost perfectly round eye.

> Dog got eye ulcer from scratch & Vet wanted to remove the eye. I said no as I wanted to try DMSO first. He had zero knowledge about it and said I was cruel to make her suffer longer because she was already blind in it. A month later cured including getting her eyesight back!



Lastly, DMSO has also saved eyes in humans:

> My dad had an eye disease and he used DMSO and it worked. At Mayo they said they might have to take the eye. But it cleared up with a mixture of vitamin C and DMSO

General Vision Improvements and Preventive Use

In the same way that DMSO can improve severe visual diseases, it can also improve more minor issues, and many readers here have reported that DMSO improved their vision.[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27] For example:

> I just dabbed a bit of DMSO on my eye lids and got an immediate improvement. I could see my pool shots so much better. I am cautiously continuing treatment.

> DMSO immediately helped my eyesight by improving contrast after I just put a little above my ankle.

> My eyesight improved dramatically after taking DMSO.

Likewise, many DMSO authors report the same. One who has worked with many doctors using DMSO reported that those doctors found applying DMSO to the eyes helps with a variety of vision issues and eye pain, and that typically, there will be a stinging sensation for 30-40 seconds after applying DMSO to the eyes, after which the eyes typically feel better than before treatment. Likewise, that author also cited a Los Angeles doctor who had several patients who were able to read fine print more easily after only one week of applying DMSO to their eyes.

Note: that author also frequently applies DMSO to his own eyes when they feel tired and notices an immediate and rapid improvement.

Some of the most common improvements readers reported include less blurriness,[1,2,3,4,5,6,7,8] reduced eye dryness,[1,2,3,4,5,6,7,8,9,10,11] reduced eye strain[1,2,3] (**particularly from screens**) and the eyes feeling refreshed.[1,2]

> When I experience blurred vision from using devices, I apply a drop in each eye.

Additionally, many other improvements (e.g., crisper night vision) are also reported, along with many instances where remarkable eye improvements occurred (e.g., rapid resolutions or DMSO healing conditions that nothing had helped) but the specific eye benefit actually experienced was not reported.[1,2,3,4,5,6,7,8,9]

However, one of the most interesting reports I received were many readers stating their vision became blurry once they started DMSO (which initially made them quite worried given DMSO's past history with alleged visual impairments) after which they realized the actual issue was that their current glasses had become too strong, and in many cases that they didn't need glasses (or contacts) anymore.[1,2,3,4,5,6,7,8,9]

Note: another DMSO author has also reported that patients on DMSO sometimes experience improved eyesight as an unexpected but pleasant side effect (e.g., he cited a woman who no longer needed her glasses the morning after taking DMSO).

Some of those reports were as follows:

> [After applying topical DMSO to the legs] my vision had started to become blurry. It turns out my vision had improved by .5 in my left eye and .25 in my right eye, and I needed a new contact prescription. I'm sure this is a result of my dmso use as my vision is horrible and never randomly improves.

> My eyesight has improved so much I can almost ditch my contact lenses!

> My astigmatism in the left eye has improved as well. My new glasses prescription was milder than it's been in decades!

> [After taking oral DMSO] my presbyopia disappearing was an unexpected bonus.

> I use it regularly. Made my eyesight better and no longer need glasses.

> I have a friend who no longer needs her glasses to read texts on her phone. DMSO on her eyelids at night.

> I had just started working with DMSO in my patients, and after your EENT article came out I noticed ghosting in the right eye [due to a monocular diplopia there]. I mixed up a solution and used a couple DMSO drops in my affected eye. I woke up the next day and it was corrected. To this day, if I notice anything off with my vision, DMSO is my go to.

> I had eye changes when taking 30 ml. DMSO internally for a few months. I've always been near sighted and worn glasses or contacts, but as I got older I was beginning to need bifocals. One day I noticed I couldn't see clearly up close through my reading glasses. I thought my eyes were just getting worse and that I needed stronger lenses. To my surprise, when I took my reading glasses off, I could see the smallest print quite clearly. I've never needed reading glasses since. At 60 years old, I can read the tiniest print with no glasses. My nearsightedness did not get worse, and I have no cataracts, so I haven't noticed anything negative.

> My husband's eyesight had been deteriorating steadily and quickly. He is 43 and was up to bifocals. I had just started him on selenium (600 mg of the Youngevity

> brand daily). He had an ingrown toenail, so I was putting DMSO on it three times daily. In two weeks, his eyes healed so much that he no longer has to use glasses except to look at things very close up (he's farsighted).

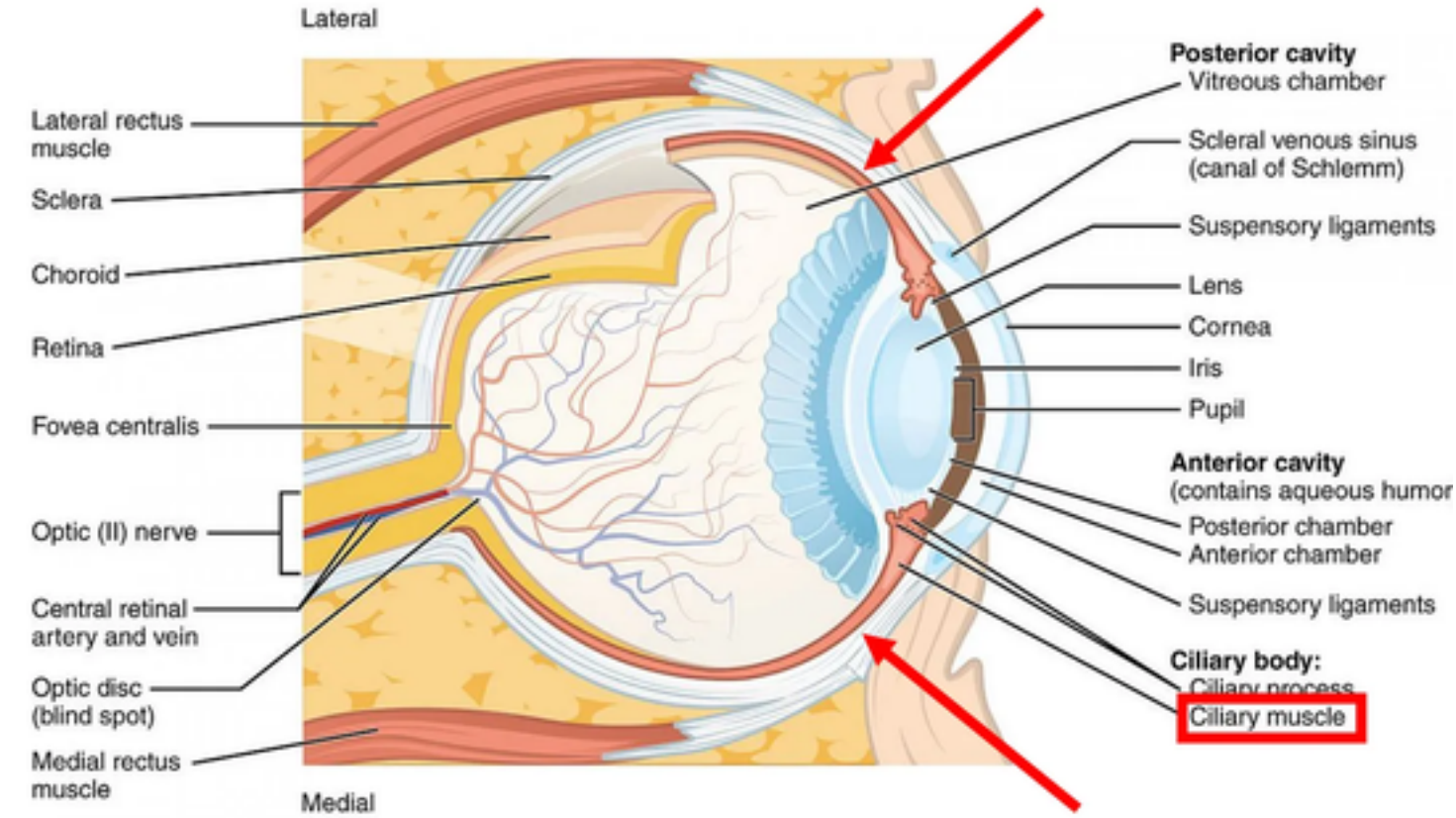
> I used a DMSO cream on my jaw line at night and noticed that my eyesight was noticeably better the next day. So I continued to use it daily along with weekly PEMF and was able to eliminate my eyeglasses entirely, which I had worn for 25 years. I no longer need glasses for reading or driving either.

From looking at them, I noticed that DMSO appeared to correct nearsightedness but did not cause farsightedness. I then checked and found out the same observation had been made throughout the German DMSO community.

This suggests that DMSO specifically addresses common pathologic processes that large numbers of people are exposed to which causes the eye to become longer and narrower. This fits as:

•DMSO reduces excess fluid within the eye which swells the eye and pushes it forward lengthening it (e.g., DMSO has been shown to reduce corneal edema)

•DMSO relaxes muscles, and the ciliary muscle, which when contracted causes nearsightedness (and is near the surface of the eye and hence likely to be affected by DMSO).



• Once the eye becomes chronically nearsighted, parts of the eye (particularly the back of the sclera) thin due to being stretched by the lengthened eyeball. Eventually, the thinned sclera remodels with disorganized collagen, loses elasticity, and becomes less compliant, making it nearly impossible for the eye to revert to normal. As DMSO excels at loosening and normalizing tissue in this state, this in theory should make it possible to normalize nearsightedness (and potentially explains why DMSO works so well with eye exercises)—particularly since another study found that in chronically inflamed eyes, DMSO decreased fibrin production.
Note: every now and then I meet someone who discovers subtle neurological symptoms resolved once the stopped using glasses or changed to a slightly different prescription, and frequently (but not always) those patients share looking through the glasses was slightly uncomfortable—again suggesting glasses sometimes unnaturally alter the body in a manner which may be counterproductive.

All of these DMSO induced changes, in turn, help to mitigate the key dangers facing our eyes, as in addition to significant fluid stagnation throughout our bodies (made worse by our sedentary lifestyles) which causes fluid to build up within the eye, we

have locked our eyes into a chronic state of nearsightedness by constantly staring at screens rather than going outside and looking at things for away.

More importantly, by doing this, an unhealthy momentum is established within the eyes, which, as time goes forward, makes it harder and harder for the eyes to revert to their normal focusing (particularly since the standard approach for this situation is to prescribe glasses which lock in the narrow and lengthened state rather than correct the actual issue before it has become permanent). DMSO hence, is ideal here, as it both provides an easy way to treat many of these issues and also can address the root causes of them that are fairly difficult to address with standard approaches (e.g., eye exercises).
Note: many people have been able to fix poor focusing with non-standard eye exercises and abandoning prescription glasses, but even those become harder and harder to do as the momentum within the eyes sets in.

Healthy Eyes

From studying this subject, it is frankly astonishing both how well suited DMSO is for healing the eyes and how few comparable options exist within the conventional medical field (where instead, many eye diseases essentially become a delaying game, where the goal becomes to preserve eye function long enough for the eyes not to fail before the patient passes from other causes).

As I hope the examples throughout this article illustrate, eye diseases are not single discrete entities, but rather interconnected symptoms which arise from the same

degenerative processes—which is why restorative therapies like ultraviolet blood irradiation or DMSO are able to treat so many seemingly different eye diseases. Most importantly, in many cases, because these conditions all emerge from the same degenerative processes, we often receive early warning signs of these disease (e.g., eye strain or "tired" eyes) long before the more serious issues onset.

For that reason, it's critical for us to take a proactive approach to maintaining eye health and also to recognize that many eye issues are ultimately a complication of our modern lifestyles, such as:

•Staring at screens all day long (particularly ones that do not have a blue light blocker installed)

•Being indoors around unnatural light all day long, particularly from LEDs and fluorescents (rather than allowing our eyes to be exposed to nourishing natural light)

•Not alternating our focus between things close to us and those far away in nature.

Note: one of the biggest challenges we often run into when addressing eye issues in patients is that, immediately afterwards, they insist on resuming strenuous eye activity (e.g., extended screen time).

Likewise, many eye conditions result from the same inflammatory and circulatory disorders which set off many other chronic illnesses (e.g., diabetes, smoking, and a myriad of autoimmune disorders are all strongly linked to specific eye diseases). These illnesses often first become evident in the eyes, again providing us an early warning something is amiss and needs to be addressed (e.g., circulatory health needs to be improved before a heart attack occurs and unhealthy diets need to be replaced with ones that provide the nutrients needed for longevity).

DMSO hence provides a remarkable tool to address many of the diseases of modern life, and it is particularly fortunate it is specifically indicated for one of the most pressing issues many of us face—maintaining our sight. We are moving into an era

where it is no longer feasible to rely upon the medical system for our health needs, and more and more tools that can allow us to take direct control of our health will be needed. Fortunately, as the DMSO saga shows, they have always been there and simply hiding in plain sight and waiting for us to look for them.

In the final part of this article, I will review general instructions for sourcing and using DMSO, along with specific guidelines for how DMSO can be applied to the eyes, exactly how to formulate DMSO eye drops, how DMSO can be specific eye conditions (alone or in combination with other natural therapies) and other synergistic therapies and home exercises we've discovered over the years for many common eye disorders (e.g., macular degeneration therapies, cataract and floater treatments, natural alternatives for glaucoma, and options for eye infections).