

Transcript of a [video](#) by Dr. Harmut Fischer, DMSO in Eyes



3% DMSO Eye Drop Protocol

"A topic that interests a great many people is the question of how to use DMSO for the eyes.

Right away, I can say in advance that it does not matter which symptoms occur in the eye.

Whether these are inflammatory symptoms, degenerative symptoms, whether they occur at the front of the eye, the back of the eye, in the vitreous body—whatever the case may be—there are very, very many positive experiences by now, showing that all sorts of symptoms in the eye can be well treated with DMSO.

And, as always with the subject of DMSO, the initial question is about concentration—how strongly is DMSO diluted in order to be applied to the eye, which is basically a mucous membrane surface?

The principle is: choose a liquid—a diluting fluid—with which to mix the DMSO so that we achieve a good concentration that is tolerable for the eye, but still effective.

Through the years, we have seen—and it has proven successful—that a 3% DMSO mixture is used, diluted with an isotonic solution.

Typically, you can buy isotonic saline solution (0.9% sodium chloride) just about anywhere. It's also very inexpensive.

I personally prefer, or find it even better, to use isotonic seawater. Seawater that is sterilized and prepared is simply more balanced.

We know, for example, from nasal applications that seawater or sea salt products, nurture and support the mucous membranes. And of course, we can also make good use of that for eye drops.

Okay, a few supplies to choose from: if I want to mix and produce it (3% DMSO eye drops) myself, I need some kind of measuring vessel.

In the simplest case, I'd almost say a kind of shot glass. This is a lab beaker—technically a beaker glass—but a shot glass often has a calibration mark that you can use. Here we have gradations at 25, 50, and 75 milliliters. Of course, there are different options.

There are also graduated cylinders—here's a 25ml version. Of course, there are much larger ones too, all sorts of sizes. So I choose a measuring vessel that suits approximately the volume I want to make.

In my case, I've picked a brown glass bottle as the container, and in the end, the finished mixture will go into this little bottle. This is a bottle with a pipette, so we can use it right away for application.

Another option is a graduated measuring cup with a mark up here. This one is a 100ml version. So there are different possibilities, and if I know how much total volume I want, I can choose accordingly.

Three percent—that's a small calculation task whenever we talk about DMSO mixing and dilutions. This calculation is very simple: that means three parts **undiluted** (100% full-strength) DMSO to 97 parts of a diluting fluid. (Editor: DMSO has **two** % numbers; purity & dilution. These two DMSO % numbers are often confused.)

For example, if I want to make 100ml in such a measuring vessel, that would be 3 ml of DMSO and 97ml of the diluting liquid. In my case, it would be isotonic seawater.

We could also weigh it. We can figure out 3% by volume or by weight—so we could put the container on a scale, weigh 3 grams of DMSO, and then 97 grams of diluting fluid, or just fill it up to 100 grams total. That's also an option.

Worried about decimal places? All these DMSO containers—even a simple beaker or shot glass—are accurate enough. Whether it ends up being 2.9% or 3.1% really does not matter.

What's more important is working cleanly, because in this case we want to apply the mixture to the eye. So if we mix in an open container like this, it should be well-rinsed beforehand.

You can also spray it with hydrogen peroxide solution just before and let it dry, so we're working as cleanly as possible. (Editors note: you could also sanitize it with CDS.)

So, 3ml of DMSO in 100ml. Here, I have a mark at 50, which is enough, because this little bottle holds 30ml. That means for 50 ml, it's 1.5 ml of DMSO, then fill up to 50 ml with the diluting liquid.

If I don't have a tool to measure out such a small amount of DMSO, I can count drops. The basic formula is: 1 ml of liquid is about 20 drops. That can vary a bit, because various pipettes produce different drop sizes, but again, it's precise enough. (Editor: DMSO is a carrier. Be sure nothing is near your eyes, such as makeup, that could be pulled inside.)

So for 50ml total, I would now need 30 drops (1.5 ml of DMSO)—since for 100ml total, 3ml of DMSO would be 60 drops. For 50 ml, it's 30 drops. I'll do that now...

So, 30 drops of DMSO in my little glass, and now I fill it up to the 50 ml line with the isotonic seawater.

You can see clearly, when water and DMSO come together, there are striations and a slight warming effect. With such small quantities, it's barely noticeable.

So, now the mixture is ready, and I can pour it into my little bottle.

If we have infectious eye symptoms—mucosal infections or something like a sty (i.e., infectious symptoms caused by microorganisms or viruses)—we can expand these eye drops further by adding, for every 10ml of the mixture, one drop of 3% hydrogen peroxide. Very, very little. (or, use a drop of CDS)

A maximum of one drop per 10ml. In other words, here I have 50ml in the little glass, so I could add five drops of 3% hydrogen peroxide, mix that in, and then fill my pipette bottle with it.

Yes, and there's another very, very important point, a crucial step when making your own DMSO mixtures: the bottle must be labeled. Otherwise, tomorrow or the day after—or even tonight—I won't know what I've mixed and bottled here.

Yes, this is an unlabeled bottle, which shouldn't happen. So I take a label and write: "DMSO 3% isotonic".

Of course, there are other alternatives regarding the container. For instance, there are individual, sterilely packaged eye-drop bottles that you can squeeze, so that only one drop comes out when you press with your fingers.

And that brings up the question—also for the measuring cylinder I showed earlier—people often ask, "But these are plastic materials. How does DMSO behave with them?" Well, I think you can answer that yourself: here, we have a highly diluted DMSO solution. Once DMSO is surrounded by water molecules, it no longer tends to attack plastic surfaces or dissolve other substances from them.

We'll get to some frequently asked questions on this topic in a moment. So these kinds of bottles are also possible. I personally like to work with the brown glass bottles.

Another alternative is to buy the 3% DMSO solution pre-made. Nowadays, it's also available in a multi-chamber bottle as a prescription medication. You can also find it in various

online shops as a ready-to-use mixture, for people who aren't as comfortable making their own.

In the nice book "Medizin zum Selbermachen" (Medicine You Can Make Yourself), under the heading "DMSO Eye Drops," there is a section with frequently asked questions and answers.

On that list is the question: "Can you actually use 3% DMSO solutions if you have had cataract surgery?" In other words, if a plastic lens was implanted, or, as it's commonly called, an artificial lens, is it safe to use this 3% DMSO protocol?

This question directly connects to what I said about plastic materials.

We have here a highly diluted DMSO mixture that shows no tendency to interact with plastic surfaces. DMSO eye drops have been used worldwide for decades, and people like using them, including for preventive care and general eye health, or to help if you do a lot of computer work, etc.

And there has never been any indication that, after cataract surgery, there was any interaction with the implanted lens. Eye doctors who recommend these drops to their patients—or use them themselves—have not observed any such effect diagnostically.

On the contrary, post-operative recovery and healing are further supported and assisted by this mixture.

Yes, another question people often ask is whether it can also be used for different types of macular degeneration. The answer is yes.

How often and how long can you use 3% DMSO on the eye? That's decided individually, intuitively. Basically, you confer with your body—in this case, your sensory organ, the eye—and if it feels good, you keep that rhythm.

So if you start out using these drops once or twice a day, and you have acute symptoms, you can increase the frequency and use them several times a day—up to six or eight times is also possible. The duration of use depends on how your symptoms develop.

If you're satisfied with your eye health, you can of course stop using them. If not, you can continue. That's how straightforward it is to work with DMSO and similar substances.

All the other frequently asked questions can be found in my (DMSO) book, along with additional explanations of how to use and handle it, and so on. I think, with that, everyone can manage very well." (Editor's note: search YouTube for ways to administer eye drops.)

DMSO Eye Drops – Overview



General Info

- 3 Parts DMSO Ph, Eur. ; 97 Parts isotonic Water
- 0,05 ml Volume = 1 Dropper Drop
- 1 ml Volume = 20 Dropper Drops

Recipe Examples

- Total Amount 100 ml:
→ 3 ml DMSO Ph. Eur. = 60 Drops
→ 97 ml isotonic saline solution

- Total Amount 50 ml:
→ 1,5 ml DMSO Ph. Eur. = 30 drops
→ 48.5 ml isotonic saline solution

- Total Amount 30 ml:
→ 0.9 ml DMSO Ph. Eur.= 18 drops
→ 29.1 ml isotonic saline solution

- Total Amount 10 ml: = 200 drops
→ 0.3 ml DMSO Ph. Eur.= 6 drops
→ 9.7 ml isotonic saline solution

Infectious Eye Symptoms

- From Stye to Bacterial and Viral Conjunctivitis
- Add 1 Drop of H_2O_2 3% to Every 10 ml (or CDS)
- DMSO Eye Drops Containing an Oxidant, Prepare Fresh Before Use



To maximize the effectiveness of eye drops, it is recommended to keep your eyes closed for 2 minutes after instilling the drops. Some sources suggest keeping your eyes shut for about one to three minutes, depending on the medication. Additionally, combining this with pressing gently on the inner corner of the eyelid for 2-3 minutes can help the drop penetrate the eye more effectively.

For computer use, it is advised to take regular breaks to reduce eye strain. The 20-20-20 rule is recommended: every 20 minutes, look away from the screen at an object at least 20 feet away for 20 seconds. This helps prevent dry eyes and reduces the risk of eyestrain. (AI Leo)

How To Make A 0.9% Saline Solution

If medical grade saline is not available, you could make a 0.9% saline solution. Fully dissolve 9 grams of sodium chloride (NaCl) in 1 liter of warm distilled or filtered water. Use a purified salt that does not contain minerals. So, do not use sea salt (which can contain more than 80 minerals) or iodized salt. The density of different salts can vary a lot, as well as salt particle size. **Salt must be weighed**, and not measured using volume measuring utensils, such as spoons. (CL)

Saline Qty	Water Qty	NaCL Qty
1000 ml	1000 ml/gms	9 grams
500	500	4.5 g
100	100	90 mg
50	50	45 mg
10	10	9 mg

“Since the 10 ml eye drop solution does not remain sterile, you can add 1 drop (0.05ml) of 3% H₂O₂ (or 1 drop of CDS) to the eye drops, checking before use whether the drops are still clear and transparent.

Dr. Hartmut Fischer also says that after two or three days, another 1 drop of H₂O₂ (or CDS) should be put into the solution to renew the sterility.” (Curious Outlier) (Edited)

“I have taken commercially made saline from an IV bottle, poured it into an empty throw-away PET water bottle and then added enough CDS to create a 50 ppm concentration for nebulizing and it basically keeps its yellow color for many months, unrefrigerated no less. So I would say if you make your own saline and then sterilize it by making it 5 to 10 ppm (CDS), it should be okay for months, especially if also kept refrigerated.” (Scott McRae)

Definitions:

Isotonic Seawater The prefix "iso" means equal. In medicine, a fluid is said to be isotonic when it has the same molecular concentration as blood plasma. In the case of a saline solution, this is equal to 9 parts per thousand of pure water. Therefore this isotonic concentration contains only a third of the salt content of water in oceans.

Thus, if the fluid contains approximately as many molecules as blood plasma, this liquid is said to be isotonic.

Hypertonic Seawater When this concentration is higher than 9/1,000, it is said to be hypertonic. Seawater has a concentration of 35/1,000. Hypertonic seawater has approximately 2/3 the salt content of regular seawater. Therefore, hypertonic seawater is purified, non-diluted seawater collected under special conditions at a certain depth in the ocean.

The liquid is said to be hypertonic if the concentration of dissolved material is higher than that of blood.