

Substitute For Contact Lens Solution

When You Run Out: Understanding a Substitute for Contact Lens Solution

You are rushing out the door, your contact lens case is sitting on the bathroom counter, and you realize with a sinking feeling that the bottle of multipurpose solution is completely empty. It is a moment of panic familiar to many contact lens wearers. In that instant, the desperate search for a quick substitute for contact lens solution begins. Before you reach for tap water, saline spray, or that bottle of eye drops in your gym bag, it is crucial to understand what contact lens solution actually does, which alternatives are safe in a genuine emergency, and which common household items could cause serious damage to your eyes. This guide will walk you through the options, the risks, and the best practices to keep your vision and eye health secure.

What Does Contact Lens Solution Actually Do?

To evaluate any substitute for contact lens solution, you first need to understand the job your usual solution performs. Multipurpose solutions are not just a liquid to keep lenses wet. They are carefully balanced chemical formulations designed to perform several critical tasks at once.

- **Disinfection:** The primary function is to kill bacteria, fungi, and other microorganisms that collect on lenses throughout the day. Without effective disinfection, these pathogens can multiply and lead to serious corneal infections.
- **Cleaning:** Solutions contain surfactants that help loosen and remove protein deposits, lipids, and debris from the lens surface. This keeps lenses comfortable and extends their lifespan.
- **Rinsing:** After cleaning and disinfecting, lenses must be rinsed to remove loosened debris and residual disinfectant before they go into your eyes.
- **Hydration and Conditioning:** Many solutions include wetting agents and polymers that keep lenses moist and comfortable, reducing the feeling of dryness when you insert them.
- **pH and Osmolality Balance:** The solution must match the natural pH and salt concentration of your tears to avoid stinging, burning, or damaging the delicate corneal tissue.

A true substitute for contact lens solution must replicate at least some of these functions, particularly disinfection and hydration, without causing chemical injury to your eyes. As you will see, very few household products come even close to meeting these requirements.

Safe Emergency Substitutes: What Actually Works

If you are in a genuine emergency and cannot access proper contact lens solution within a few hours, there are a couple of options that are considered safer than others. However, it must be

emphasized that these are short-term measures only, and they come with important limitations.

Saline Solution for Rinsing

Saline solution is the closest safe substitute for contact lens solution, but only for rinsing and storage. Sterile saline, which is a simple mixture of sodium chloride and purified water, closely matches the salt concentration of human tears. It will not burn, sting, or chemically damage your lenses or your eyes. You can find sterile saline in pharmacies, often sold for wound irrigation or for use with nebulizers.

The critical limitation is that saline solution does not disinfect. It can keep a lens moist for a few hours, but it will not kill bacteria. If you store a lens in saline overnight, you must thoroughly disinfect it with proper contact lens solution before wearing it again. Never use saline as a substitute for cleaning or disinfecting.

Homemade Saline: A Risky DIY Option

In a true survival situation where no other options exist, some people consider making their own saline at home. While this is possible, it carries significant risks. You must use distilled water that has been boiled for at least five minutes and cooled completely. Then, add a precise amount of non-iodized salt. The mixture must be stored in a completely sterile container.

This homemade substitute for contact lens solution is not recommended for several reasons. First, it is extremely difficult to achieve the exact salt concentration that matches your tears. Second, maintaining sterility in a home kitchen is nearly impossible. Third, homemade saline does not contain preservatives, so bacteria can begin growing within hours. Only use this method in a dire emergency and never for more than one short-term use.

Rewetting Drops: A Temporary Hydration Fix

Contact lens rewetting drops are specifically designed to be used while lenses are in the eyes. They can help when your lenses feel dry or gritty, but they are not a substitute for contact lens solution in terms of cleaning or disinfecting. You can use them to moisten a lens briefly before insertion if you have no other option, but they should not be used for overnight storage. They lack the disinfecting power needed to keep a lens safe for extended periods.

What Absolutely Cannot Be Used as a Substitute

There is a long list of substances that people have mistakenly used as a substitute for contact lens solution, leading to emergency room visits, corneal abrasions, infections, and even permanent vision loss. These should never be used under any circumstances.

Tap Water

Tap water is perhaps the most dangerous substitute. It contains microorganisms, including the notorious *Acanthamoeba*, a microscopic parasite that can cause a devastating eye infection called *Acanthamoeba* keratitis. This infection is extremely painful, difficult to treat, and can lead to blindness. Water also has the wrong pH and salt balance, which causes lenses to swell, change shape, and adhere painfully to the cornea. Never use tap water to rinse, store, or clean your contact lenses.

Saliva

Using saliva to wet a lens might seem like a quick fix, but your mouth is full of bacteria that can cause severe eye infections. Saliva is not sterile and contains enzymes and particles that can damage the lens material. This is one of the worst possible choices you can make.

Distilled Water or Bottled Water

While distilled water lacks the chlorine and minerals found in tap water, it still is not sterile and does not have the correct salinity. It can cause lenses to warp, and it offers no disinfection. Bottled water, whether spring, purified, or mineral, carries similar risks. Neither is an acceptable substitute for contact lens solution.

Hydrogen Peroxide (Undiluted)

Some contact lens cleaning systems use hydrogen peroxide, but they require a special neutralizing step before the lens is safe to wear. Putting a lens soaked in undiluted hydrogen peroxide directly into your eye causes immediate and intense chemical burning, corneal damage, and extreme pain. Never attempt to use hydrogen peroxide from your medicine cabinet as a substitute.

Eye Drops for Dry Eyes

Regular artificial tears or lubricating eye drops are not formulated for contact lenses. They can contain preservatives, thickeners, or additives that build up on the lens surface, causing discomfort, blurry vision, and reduced oxygen flow. Some eye drops are specifically labeled as safe for contact lenses, but even these are not a substitute for cleaning and disinfecting solution. They are designed for comfort, not sterilization.

How to Store Lenses Safely Without Solution

If you find yourself without any acceptable substitute for contact lens solution, the safest course of action is to not store your lenses in liquid at all for a very short period. You can place the lenses in a clean, dry contact lens case and leave them to dry out completely. This will kill most bacteria because microorganisms need moisture to survive.

There is a significant downside: dried-out lenses become brittle and misshapen. When you rehydrate them later, they may not return to their original curvature, which can affect vision and comfort. However, this is still safer than storing them in water or saliva. Once you rehydrate them

with proper solution, inspect them carefully for cracks, chips, or distortion before considering reuse.

When to Replace Instead of Substitute

Sometimes the best alternative to finding a substitute for contact lens solution is simply to replace the lenses. Daily disposable lenses are designed for single use and should never be stored overnight. If you wear bi-weekly or monthly lenses and you have an open, sterile blister pack of daily disposables, using a fresh pair can solve your problem immediately.

If you are traveling and run out of solution, consider visiting a pharmacy or an optometrist's office rather than attempting a risky homemade solution. Most optical stores sell small travel-sized bottles of multipurpose solution that are inexpensive and provide the proper care your lenses need. When you weigh the cost of a small bottle against the cost of an eye infection or a corneal ulcer, the choice becomes obvious.

The Bottom Line on Contact Lens Solution Substitutes

The search for a substitute for contact lens solution often comes down to convenience versus safety. The uncomfortable truth is that there is no truly safe all-in-one substitute for the multipurpose solution designed specifically for contact lenses. Saline solution can serve as a temporary hydration and rinsing agent in a pinch, but it cannot disinfect. Rewetting drops can ease dryness while lenses are in your eyes, but they cannot clean or store lenses overnight.

Every other common household substance, from tap water to saliva to distilled water, carries risks that far outweigh any temporary convenience they might offer. The potential consequences including infection, corneal scarring, and vision loss are simply not worth the gamble.

Your best strategy is prevention: always carry a spare bottle of solution, keep a travel-sized bottle in your car or desk, and know where the nearest pharmacy is located. If you do run out, remember that reusing yesterday's lenses without proper cleaning is dangerous, but storing them dry in a clean case is safer than any homemade liquid substitute. When you have access to proper contact lens solution again, clean and disinfect the lenses thoroughly before wearing them. Your eyes are irreplaceable, and they deserve nothing less than the proper care that only genuine contact lens solution can provide.

Conclusion

Running out of contact lens solution is inconvenient, but it does not have to become a medical emergency. While sterile saline is the closest safe substitute for contact lens solution for rinsing and short-term storage, it is not a disinfectant and cannot replace the full cleaning power of multipurpose solution. The alternatives you might find around your home, such as tap water, saliva, or homemade mixtures, carry serious risks that can damage your eyes permanently. Your best course of action is always to obtain proper contact lens solution as soon as possible. When in doubt, err on the side of caution and remove your lenses until you can care for them correctly. Your vision is too precious to trust to makeshift solutions.