How To Store Contact Lenses Without Solution

INTRODUCTION: WHEN YOU'RE CAUGHT WITHOUT CONTACT LENS SOLUTION

Contact lens wearers know the sinking feeling: you're traveling, staying overnight at a friend's place, or simply forgot to restock your supply, and you realize you have no multipurpose solution on hand. Your lenses are out, and your eyes are starting to protest. The immediate question is: **How to store contact lenses without solution** safely? While no substitute is perfect for the disinfecting and conditioning properties of a proper contact lens solution, there are emergency alternatives that can keep your lenses hydrated and protect your eyes for a short period. This article explores the best temporary methods, what to avoid at all costs, and how to handle this situation without risking an eye infection. Understanding the risks and proper steps will help you make an informed decision when standard care products are unavailable.

WHY CONTACT LENS SOLUTION IS ESSENTIAL

Before diving into alternatives, it's important to understand why contact lens solution (multipurpose, saline, or hydrogen peroxide) is the gold standard. These solutions are formulated to **disinfect, clean, rinse, and store** contacts. They kill bacteria, fungi, and viruses that can accumulate on lenses, while maintaining the correct pH and moisture balance to keep the lens comfortable. Storing lenses without proper disinfectant increases the risk of microbial keratitis, a serious eye infection that can lead to vision loss. However, in a pinch, you can use certain sterile liquids to keep lenses from drying out and to avoid immediate discomfort. The key is to treat these as short-term measures and to thoroughly clean and disinfect your lenses as soon as possible.

SAFE EMERGENCY ALTERNATIVES FOR STORING CONTACT LENSES

1. Sterile Saline Solution

The best alternative to multipurpose solution is **sterile saline solution**. This is simply a sterile mixture of 0.9% sodium chloride and water, used for rinsing and storing lenses. It does not contain disinfectants, so it won't kill microorganisms, but it will keep your lenses hydrated and comfortable for a few hours. You can purchase sterile saline at any pharmacy in aerosol cans or bottles. If you have extra vials of saline from a neti pot or first aid kit, that can work too. Never use homemade salt water or table salt mixed with tap water

— it is not sterile and can cause severe irritation.

How to store: Rinse your lenses with sterile saline to remove debris, then place them in a clean contact lens case filled with fresh sterile saline. Seal the case and store at room temperature. Do not use this method for more than 24 hours. After that, the risk of bacterial growth increases significantly.

2. Contact Lens Rewetting Drops

Many contact lens wearers carry rewetting drops. These are sterile solutions meant to rehydrate lenses on the eyes, but they can also serve as a temporary storage medium in a pinch. Rewetting drops contain lubricants and buffers similar to multipurpose solutions, but they lack the same broad-spectrum disinfecting power. They are better than nothing for short-term storage, especially if you only need to keep lenses safe for a few hours overnight.

How to store: Fill your case completely with the rewetting drops (you may need multiple vials). Soak the lenses. Change the drops if storing longer than 12 hours. Do not reuse the same drops the next day — discard and use fresh solution.

3. Hydrogen Peroxide-Based Systems (Not Plain Peroxide)

If you have a hydrogen peroxide cleaning system (like Clear Care), you can use it to store lenses, but only if you follow the instructions exactly. This system uses a 3% hydrogen peroxide solution that effectively disinfects, but must be neutralized with a special disc or tablet before putting the lenses in your eyes. **Never use plain hydrogen peroxide from the drugstore** — it will burn your eyes and cause corneal damage. However, if you have the correct system and its neutralizing case, you can store lenses in the peroxide for up to 24 hours (the neutralization process occurs over several hours).

How to store: Place lenses in the special basket, fill the case with the hydrogen peroxide solution, and make sure the neutralizing disc is present. Let them soak for at least 6 hours. Do not use the peroxide for storage beyond 24 hours — the neutralizing effect may degrade.

4. Distilled or Sterile Water (Ultra-Short Term Only)

In an absolute emergency, **sterile distilled water** (the kind sold for baby formula or CPAP machines) can be used for a few hours to keep lenses from drying out. Tap water, spring water, or bottled water meant for drinking is not sterile and contains microorganisms that can lead to acanthamoeba keratitis, a

dangerous eye infection. Distilled water from a sealed container is sterile, but it lacks the electrolytes and buffers needed for lens comfort. It may cause stinging or swelling after prolonged use.

How to store: Boil tap water for 10 minutes and let it cool (only in dire need — boiling kills most pathogens but does not remove chemical impurities). Or use a sealed bottle of distilled water. Soak lenses for no more than 4–6 hours. Discard the water and lenses afterward if possible. This is the last resort before wearing the lenses dry.

WHAT NOT TO USE: DANGEROUS "SOLUTIONS" TO AVOID

When trying to figure out how to store contact lenses without solution, it's tempting to grab whatever liquid is handy. Here are common substances that should **never** be used:

- **Tap water**: Contains bacteria, protozoa (like Acanthamoeba), and chlorine that can cause severe infections and keratitis.
- **Saliva**: Your mouth is full of bacteria. Using saliva to wet lenses can introduce harmful germs directly to your eyes.
- **Eye drops for dry eyes** (non-saline): Many contain additives that are not meant for soaking; they can damage lens material or become contaminated.
- **Alcohol, vinegar, or any household cleaner**: Extremely dangerous; these will damage the lens and cause chemical burns to eyes.
- **Homemade salt solutions**: It's nearly impossible to achieve the correct salinity and sterility at home; even a slight imbalance can cause eye irritation or corneal edema.

Using any of these puts your vision at risk. If you have no safe alternative, it is better to discard the lenses and wear glasses until you can get proper solution.

STEP-BY-STEP EMERGENCY STORAGE METHOD

If you must store your contacts without solution, follow this safe protocol using the best available alternative (sterile saline or rewetting drops):

1. **Wash your hands thoroughly** with soap and water, and dry them with a lint-free towel.
2. **Remove one lens** and place it in the palm of your hand. Squirt a few drops of sterile saline or rewetting drops onto the lens and gently rub it for 10 seconds to remove surface debris. (If you have no saline, you can use the alternative liquid you have chosen.)
3. **Rinse the lens** with the alternative liquid, then place it in a clean contact lens case.
4. **Fill the case compartment** completely with the alternative liquid, making sure the lens is fully submerged. Close the case tightly.
5. **Repeat for the other lens.**
6. **Label the case** with the time and date, and note that it was stored without proper solution.
7. **Store at room temperature** away from direct sunlight or heat.
8. Within 12–24 hours, either disinfect the lenses with true multipurpose solution or discard them.

If you have no case, you can use a clean,

empty prescription bottle or a shot glass covered with plastic wrap — sterilize the container with boiling water first if possible. Never store lenses in a tissue or paper cup, as they will dry out or tear.

WHAT TO DO AFTER EMERGENCY STORAGE

Once you obtain proper contact lens solution, you must disinfect the lenses before wearing them again. Do not simply rinse and insert. Follow these steps:

- Remove the lenses from the alternative liquid.
- Rub each lens with a few drops of multipurpose solution for 20 seconds.
- Rinse thoroughly with fresh solution.
- Place lenses in a clean case with fresh solution and soak for a minimum of 6 hours (or as recommended on the bottle).
- If you used hydrogen peroxide system, follow the neutralization cycle completely.
- If you are unsure about the sterility of the storage medium, consider disposing of the lenses and using a new pair. Lenses are inexpensive compared to an eye infection.

RISKS OF STORING CONTACT LENSES WITHOUT SOLUTION

Even with the best intentions, emergency storage increases the risk of:

- **Microbial keratitis** – an infection of the cornea that can cause scarring, pain, and vision loss.
- **Corneal edema** – swelling from improper pH or osmolarity, leading to blurry vision.
- **Lens deterioration** – some liquids can warp or dry out the lens material, making them uncomfortable or sharp.
- **Allergic reactions** – if you use too many different drops or non-sterile liquids.

The longer you store lenses in an alternative medium, the higher the risk. Never exceed 24 hours, and ideally keep it under 12 hours. If your eyes become red, painful, or sensitive to light after using such stored lenses, remove them immediately and see an eye doctor.

CONCLUSION: BETTER SAFE THAN SORRY

Knowing how to store contact lenses without solution is a vital skill for any lens wearer, but it should never become a habit. The best emergency alternatives — sterile saline, rewetting drops, or a proper hydrogen peroxide system — can keep your lenses safe for a short time, but they lack the full disinfection power of multipurpose solution. Always carry a small travel-sized solution bottle, and if you find yourself without one, opt for a safe alternative rather than tap water or saliva. After emergency storage, thoroughly clean and disinfect your lenses before wearing them again. Your eyes are irreplaceable — a few hours of inconvenience is worth avoiding a lifetime of vision problems. If in doubt, discard the lenses and wear glasses until you can get fresh supplies.