

Make Your Own Contact Solution

Evaluating the Possibility of Making Your Own Contact Solution

Contact lenses offer millions of people the freedom to see clearly without glasses. But with that freedom comes the need for proper care, particularly when it comes to cleaning and storing lenses. The cost of commercial contact lens solutions can add up, leading some to wonder: **Can I make my own contact solution at home?** The short answer is yes, you can create a basic saline rinse, but there are significant risks and limitations you must understand before attempting to "make your own contact solution" for daily use. This article dives into the ingredients, methods, safety precautions, and why commercial solutions remain the gold standard for lens health and eye safety.

Eye care professionals universally recommend using only sterile, commercially manufactured solutions for contact lens disinfection and storage. However, for emergency rinsing or as a temporary measure when no commercial solution is available, a properly prepared homemade saline solution can be used sparingly. This guide provides step-by-step instructions, explains the science behind lens care, and highlights the critical differences between cleaning, disinfecting, and storing lenses.

Why Consider a Homemade Contact Solution?

There are a few legitimate scenarios where knowing how to prepare a simple saline solution can be useful:

- **Emergency situations:** If you run out of commercial solution while traveling or during a natural disaster.
- **Temporary rinsing:** To flush a lens that has been dropped or contaminated before disinfection.
- **Cost concerns:** Some individuals seek more affordable alternatives to expensive brand-name solutions.
- **Allergic reactions:** Rarely, a person may be sensitive to preservatives in commercial solutions and want a preservative-free rinse.

It is important to note that homemade solutions **do not disinfect lenses**. They only provide saline rinsing and short-term storage. For proper lens care, disinfection is non-negotiable.

Understanding Saline vs. Multi-Purpose Solution

A saline solution is simply salt water with a specific concentration of sodium chloride (0.9%) that matches the saltiness of human tears. It is used for rinsing and storing lenses but **does not kill bacteria, fungi, or viruses**. Multi-purpose solutions contain disinfecting agents (like polyquad, Aldox, or PHMB) that actively eliminate microorganisms. When you "make your own contact solution," you are only creating a saline rinse, not a disinfectant.

The Risks of Using DIY Contact Solutions

Before we share a recipe, you must understand the potential consequences of improper homemade lens care:

1. **Infection risk:** Tap water or non-sterile containers can introduce Acanthamoeba, a microscopic organism that causes a severe, painful eye infection that can lead to blindness.
2. **Lack of disinfection:** Without antimicrobial agents, bacteria can thrive on the lens surface, leading to keratitis.
3. **Improper salt concentration:** Too much salt will irritate your eyes; too little will cause osmotic swelling of the corneal cells.
4. **pH imbalance:** Homemade solutions may not have the correct pH (around 7.4), causing stinging and discomfort.
5. **Short shelf life:** Homemade saline spoils quickly and can become contaminated within hours.

If you choose to proceed, do so only in emergencies and always follow proper sterilization techniques.

Ingredients and Equipment for Homemade Saline Solution

What You Will Need

- **Distilled water** (NOT tap water – tap water contains chlorine, fluoride, and potential microbes)
- **Non-iodized salt** (pure sodium chloride without anti-caking agents or iodine; pickling or canning salt works best)
- **Clean glass container with a lid** (sterilized by boiling or using a dishwasher on high heat)
- **Measuring spoons** (accurate and clean)
- **Saucepan** (for boiling water)
- **pH test strips** (optional but recommended to ensure neutrality)

Never use table salt, sea salt, kosher salt, or any salt with added iodine or anti-caking agents. These additives can damage your contact lenses and irritate your eyes.

Follow these steps precisely to create a sterile saline rinse. This solution is for emergency rinsing only and should not be used for overnight storage unless you also perform a proper disinfection step immediately after.

1. **Sterilize your equipment:** Wash your hands thoroughly with soap and water. Boil the glass container, lid, and measuring spoons in water for at least 10 minutes. Let them air dry on a clean paper towel.
2. **Boil distilled water:** Pour about 1 liter (4 cups) of distilled water into a clean saucepan. Bring it to a rolling boil for 5 minutes. This ensures any remaining microbes are killed.
3. **Add the salt:** Measure 2 teaspoons (about 9 grams) of non-iodized salt per liter of water. Add the salt to the boiling water and stir until fully dissolved. The concentration should be 0.9% – slightly less than a level teaspoon per cup (use 1/4 teaspoon per 8 ounces if scaling down).
4. **Cool properly:** Remove from heat and let the solution cool to room temperature. Do not speed cooling by placing it in the refrigerator, as condensation can introduce bacteria.
5. **Transfer to sterilized container:** Carefully pour the cooled solution into the sterilized glass container. Seal the lid tightly.
6. **Check pH (optional):** Dip a pH strip into the solution. It should read between 7.0 and 7.5. If it's too acidic or basic, discard and start over. Adding a tiny pinch of baking soda can adjust pH, but it's safer to remake.
7. **Label and date:** Write the date on the container. Use the solution within 72 hours if refrigerated (24 hours at room temperature). Any cloudiness or precipitate means discard immediately.

Important Safety Tips During Preparation

- Always wash hands before handling lenses or solution.
- Do not touch the rim or inside of the container with your fingers.
- Never reuse the solution – pour out any leftover after each use.
- If your eyes become red, painful, or sensitive to light after using homemade solution, remove lenses immediately and see an eye doctor.

Can You Make Your Own Disinfecting Solution?

No. There is no safe home recipe that can replicate the disinfection power of commercial multipurpose solutions. Hydrogen peroxide systems (like Clear Care) use a 3% hydrogen peroxide solution that must be neutralized by a special case. Some people consider diluting hydrogen peroxide, but this is extremely dangerous – even slight miscalculations can cause chemical burns. Do not attempt to "make your own contact solution" with hydrogen peroxide, alcohol, or any household cleaners.

Storage and Disposal of Homemade Saline

Homemade saline is highly perishable. Because it contains no preservatives, bacteria and fungi can grow within hours. Follow these storage guidelines:

- Refrigerate the solution at all times (35-40°F / 2-4°C).
- Discard after 72 hours, even if it looks clear.
- Do not transfer solution to another container – risk of contamination increases.
- Never mix homemade saline with commercial solutions – chemical reactions can occur.
- If you see any floating particles, cloudiness, or an unusual smell, discard immediately.

Better Alternatives to DIY Solutions

If cost is a primary concern, consider these safer options instead of making your own contact solution:

- **Store brands / generic solutions:** Most pharmacies offer generic multi-purpose solutions that meet FDA standards and cost much less than name brands.
- **Preservative-free saline vials:** Single-use vials are sterile and affordable, perfect for rinsing.
- **Daily disposable lenses:** Eliminate the need for any solutions entirely – just wear fresh lenses each day.
- **Contact lens solution subscription:** Some online retailers offer discounts for regular delivery.

Your vision is priceless. Spending a few extra dollars on a proven commercial solution is far cheaper than treating a corneal infection.

When Homemade Solution May Be Acceptable

There are very limited situations where using a homemade saline solution is acceptable:

1. **Emergency rinsing of a dropped lens:** If you drop your lens on a clean surface and have no commercial solution, a quick rinse with homemade saline can remove dust before you place the lens in your eye (but you should still disinfect later).

2. **Flushing an irritant:** If you get a speck of dirt or makeup in your eye, homemade saline can be used as an eyewash – better than tap water.
3. **Short-term storage while traveling:** If you forget your solution and need to store lenses for a few hours before you can buy commercial product – but only if you disinfect immediately after.

In all cases, consult an eye doctor as soon as possible. Never use homemade solution as a long-term replacement for commercial products.

Conclusion: Weighing Convenience vs. Safety

While it is possible to make your own contact solution – specifically a saline rinse – the process requires meticulous attention to sterility, accurate salt measurement, and strict storage limits. The reality is that commercial contact solutions are rigorously tested, pH-balanced, and contain effective disinfectants that DIY recipes cannot replicate. For everyday lens care, stick with FDA-approved products. For emergencies, this guide provides a reliable method to create a temporary saline solution. However, your eyes deserve the highest level of care: when in doubt, choose safety over savings. Always prioritize sterile, commercial solutions and maintain regular visits to your eye care professional.