

Safety alert:

Tap water and scleral lenses do not mix.

WHO says I shouldn't rinse my lenses with water?

<u>The American Optometric Association</u>: "Never use tap water to rinse your lenses as it has been shown to significantly increase the risk of severe ocular infections."

<u>The American Academy of Ophthalmology</u>: "Do not rinse or store contacts in water (tap or sterile water)."

<u>The Scleral Lens Education Society:</u> "Even tap water can harbor pathogens including Acanthamoeba, the dangerous amoeba that can cause painful, vision threatening eye infections. It is recommended to rinse lenses with sterile saline."

<u>The FDA:</u> "Do not expose your contact lenses to any water: tap, bottled, distilled, lake or ocean water. Never use non-sterile water (distilled water, tap water or any homemade saline solution). Tap and distilled water have been associated with Acanthamoeba keratitis, a corneal infection that is resistant to treatment and cure."

<u>The CDC:</u> "Water and contact lenses don't mix.... Keep all contact lenses away from water.... Throw away or disinfect contact lenses that touch water...."

<u>The EPA</u>: "Don't use tap water, homemade solutions, and other non-sterile solutions to disinfect and store contacts."

WHY is water unsafe for contact lenses?

It's all about acanthamoeba, which, in the words of the CDC, is "a germ that can cause a rare but very severe type of eye infection called <u>Acanthamoeba keratitis</u> (AK), which is often very painful and difficult to treat—sometimes requiring a year or more of treatment. Although rare, this type of infection can result in the need for a corneal transplant, or blindness."

AK is a rare but devastating infection, and tap water has been specifically identified as a risk factor for it. That's why avoiding use of tap water with contact lenses makes so much sense, and it's why healthcare and eyecare authorities across the board are urging us to exercise a little simple prevention by not using tap water with our lenses.

But, but, BUT!

"But... my eye doctor says I can rinse with tap water!"

The consensus amongst medical experts across the board is perfectly clear. We encourage you to read the links in this article, bring this information to your doctor's attention, and engage in conversation about it.

"But... I can't use saline to rinse my lenses. It's just too expensive!"

It's an awful lot cheaper than getting treated for an AK infection - including doctor visits, medications, and potential loss of work time, to say nothing of risk of vision loss. Like insurance, this is a matter of budgeting and price-shopping.

Ask your doctor for advice about your best options.

Price-shop, and purchase in bulk to keep your shipping costs low.

Familiarize yourself with the various preservative-free saline packaging and pricing options to find the most cost-effective approach. For example, some people use one brand for rinsing and another for filling. We have lots of videos and practical tips at dryeyeshop.com to help you fully understand the options. Make sure your doctor is involved in your choices.

"But... the instructions for the cleaning solution I use specifically say to rinse it off with tap water!"

The fact that a few products' labels may have become obsolete should not stop you from adopting "best practice" now, based on today's science and today's safety standards. Not all products' labels have caught up with current science and the current standard of care yet, but they will.

"But... isn't this just about pharmaceutical companies wanting us to buy more of their solutions?"

No. This is about decades of published science, and about medical specialists consistently speaking up about preventable cases of acanthamoeba keratitis infections resulting in sometimes devastating outcomes, and about the unique needs and risks of scleral lens users.

For further reading

Articles

Bronner, Aaron (2018, November) <u>"A Disease in Disguise: Acanthamoeba keratitis may resemble other conditions, making it difficult to catch early enough to preserve visual function."</u>
Review of Cornea & Contact Lens, November/December 2018 issue.

Studies

Zimmerman, A et al (2017, April 13) <u>Water Exposure is a Common Risk Behavior Among Soft</u> and Gas-Permeable Contact Lens Wearers. Cornea, 36(8): 995–1001

Excerpt: "CONCLUSION: Despite previously published evidence of Acanthamoeba keratitis' association with water exposure, most SCL, and nearly all GP lens wearers, regularly expose their lenses to water, with many unaware of the risk."

Sticca, MP (2018, June): <u>Acanthamoeba keratitis in patients wearing scleral contact lenses.</u> Contact Lens & Anterior Eye, 41(3):307-310.

Juarez, MM (2018, June) <u>Acanthamoeba in the eye, can the parasite hide even more? Latest</u> developments on the disease. Contact Lens & Anterior Eye, 41(3):245-251.

Illingworth CD, Cook SD (1998). <u>Acanthamoeba keratitis.</u> Surv Ophthalmol. 1998;42(6): 493-508.

QUESTIONS?

We encourage you to print this out and discuss it with your lens provider, along with all your other questions about the best and safest way to care for your specialty contact lenses.