

How to keep your contact lenses clean (and what can go wrong if you don't)

August 7 2020, by Nicole Carnt



Credit: AI-generated image ([disclaimer](#))

You're rushing and accidentally drop a contact lens on the bathroom floor. Should you:

- a. run it under the tap and pop it in?
- b. spit on it and do the same?

- c. use the cleaning solution your optometrist insists you use?
- d. replace it with a new lens?
- e. do any of the above. It doesn't really matter.

Don't do what champion boxer and rugby league legend Anthony Mundine did in 2007 and go for (b) [spit on your lens](#). He ended up in hospital with a [severe eye infection](#).

If you chose c), it's true that rubbing your lens with the cleaning solution for 20 seconds will remove some microbes. But you would need to soak the lenses in the solution for a minimum four to six hours to disinfect the lens effectively.

The best answer is (d): replace with a new lens.

Running the lens under the tap, option (a), risks your lens and eye becoming infected with a [microorganism](#) found in tapwater that could lead you to losing your sight.

Not all eye infections are harmless

Aren't all [eye infections conjunctivitis](#)? Like the kids get, bit of redness, icky discharge, drops from chemist, all good after a week?

No. If your contact lens mixes with water, you could get a rare but severe infection called [acanthamoeba keratitis](#).

Of the [680,000 contact lens wearers](#) in Australia, we estimate [10-20 a year](#) are affected by the condition.

Of these, we estimate about two to four people a year will need a transplant at the front of their eye to regain vision; about two to five people will need treatment for more than a year.

The condition mostly affects people who wear soft [contact lenses](#), the main type worn in Australia.

We found [about one-third of bathroom sinks](#) in greater Sydney contain acanthamoeba. We assume it's present in other parts of the country but no-one else has studied it so don't know how common it is elsewhere in Australia.

Acanthamoeba are free-living [protozoa](#) (single-celled microorganisms) that feed on bacteria and cells at the front of the eye, the cornea. This leads to inflammation, disorganisation and destruction of the cornea, blocking vision.

The [vast majority](#) of [acanthamoeba keratitis](#) occurs in contact lens wearers.

But you can minimize your chance of getting it. [Avoid exposing](#) your lenses to water, including running them under the tap, in the shower or while swimming.

In fact, many new packs of contact lenses now [carry](#) "no water" warning stickers like the one below.

Another of our [studies](#) shows this particular warning sticker can change behavior. Contact lens wearers who see this sticker are more likely to avoid water. Their contact lens storage cases were also less likely to be contaminated with bacteria, meaning less chance of bacterial infection and less food for acanthamoeba.

You can catch other eye infections too

While acanthamoeba infections are rare, bacterial eye infections are much more common, estimated to affect around [four per 10,000](#) contact

lens wearers a year.

About 13% of people whose eyes or contact lenses are infected with bacteria [lose substantial vision](#). That's equivalent to two lines or more on the vision chart optometrists use.

Most people's infections improve in two to four weeks by using [antibiotic drops](#).

However, bacterial infections can be severe and fast-acting. The main bacterium responsible for contact [lens](#) related infections is [pseudomonas](#), another water-loving microorganism. It can sometimes burrow through the eye surface in hours.

There is [no evidence](#) to suggest wearing contact lenses increases your risk of being infected with the virus that causes COVID-19.

So how do I avoid all this?

These [evidence-based](#) tips for healthy [contact lens](#) wear will help you avoid infections:

- wash and dry your hands before handling lenses or touching your eyes
- rub, rinse and store contact lenses in *fresh* disinfecting solution. Topping up old solution with new is an [infection](#) risk
- clean your storage case with the disinfecting solution and leave to air dry [upside down between uses](#)
- don't use water with lenses or cases
- avoid wearing your lenses overnight.

How do I know if I have a problem?

If your eyes sting, are red and watery, blurry or are otherwise uncomfortable while wearing your lenses, remove them.

If your symptoms get worse, visit an optometrist. GPs do not usually have equipment with enough magnification to diagnose potentially serious eye infections.

Pseudomonas is resistant to the strongest over-the-counter drops, [chloramphenicol](#). But most optometrists can treat eye infections by prescribing eye drops and can refer you to an ophthalmologist (a specialist eye doctor) if needed.

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