

Ear drops in eyes: A painful mistake

Medicines labeled otic are for ears, not eyes. If you accidentally put ear drops into your eyes, you will quickly know that something is very wrong. Your eyes will burn and sting right away, and later you might notice redness, swelling, and blurred vision. In most cases, the injury to the eyes is temporary, but visual changes are always a real possibility if something irritating gets in the eyes.

Unfortunately, putting ear drops into eyes is a fairly common mistake for several reasons:

- Bottles of ear drops and eye drops can look alike and may be located right next to each other in pharmacies and where you store your medicines.
- The medical terms used for ears (otic) and eyes (optic) are very similar. Pharmacists have sometimes mixed up these terms and labeled prescription ear drops to be put in the eyes. Otic and optic (or ophthalmic) are also listed on the outer cartons of some bottles of eye drops and ear drops. Doctors, pharmacists, and nurses have mistakenly picked up a bottle of otic (ear) drops, believing it was optic (eye) drops. People have

also chosen non-prescription otic (ear) drops when they intended to purchase optic (eye) drops.

- Many ear medicines use an eye-dropper (small glass or plastic tube with a rubber bulb at the top that is squeezed to draw liquid medicine into the tube), which can subconsciously lead you to believe the medicine should be placed in the eyes.

Sometimes, eye drops can be safely used as ear drops because there are relatively few medicines for ears. However, ear drops should never be used in the eyes. Eye tissue is much more sensitive than ear tissue. Thus, eye drops are specially made to be gentle and germ-free, yet effective.

In your home, ear drops that are used to clear wax out of the ears are most often confused with eye drops. However, mix-ups between other types of ear drops and eye drops have been reported. We even have a reported case in which ear drops for a pet were accidentally put into the eyes of the pet owner's child. See **Check it out!** to the right for ways that you can avoid making this common mistake.

60-second safety tip

- **Cold and pain medicines look alike.** Parents have reported mix-ups between two popular over-the-counter liquid medicines for children:
 - ✓ "**pedia relief**," a medicine for cold symptoms that contains **chlorpheniramine** (an antihistamine for sneezing, runny nose, watery eyes), **dextromethorphan** (for coughing), and **pseudoephedrine** (decongestant for nasal congestion)
 - ✓ "**pain reliever**," which contains **acetaminophen** (**Tylenol**, for pain and fever).

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Check it out!

To avoid mix-ups between eye drops and ear drops, consider the following:

✓ **Keep in box.** Keep your eye drops and ear drops in their original cartons, as pictures of an eye or ear are often on the boxes (see figure) but not on the bottles.



✓ **Separate drops.** Do not store your eye drops and ear drops in the same location. Also keep pet medicines away from human medicines.

✓ **Different times.** Use your ear drops at a different time than eye drops.

✓ **Use saline drops.** To reduce the risk of harmful mix-ups, try using water and saline ear drops to remove earwax instead of stronger substances that contain **carbamide peroxide**.

✓ **Discard leftover drops.** Once you have used prescription ear (and eye) drops for as long as the doctor told you, discard leftover drops. Write the date you open any non-prescription drops on the label and throw the bottle away 4 weeks later, as it may contain bacteria by then.

✓ **Confirm medicine.** Take a "time out" before using eye drops to confirm that the correct bottle is in your hand. Reading the label out loud helps prevent mistakes.

✓ **Flush eyes.** If ear drops are accidentally put in the eyes, flush the eyes with water and seek emergency treatment if improvement is not immediate.

Use your pre-admission testing appointment to prevent medicine errors

If you are scheduled in advance for surgery or a procedure, you will need to go to the hospital for a pre-admission testing appointment. You might need blood tests, a physical exam, and instructions about what to do before the procedure. This is a great time to go over your current list of medicines with the nurse or doctor. Some medicines need to be stopped several days or even a week before the surgery or procedure. This includes over-the-counter medicines like aspirin and herbal products (e.g., garlic, ginger, ginseng, ginkgo). If you are admitted to the hospital after your surgery or procedure, your doctor may need to prescribe these medicines for you during your stay.

Since there are many medicines with names that look and sound alike, you should bring a neatly printed or typed list of your medicines with you when you go for your pre-admission testing appointment. Carefully check each prescription bottle or medicine label to make sure you have spelled the drug names properly. Include the dose of the medicines and how often

you take each one. If possible, also bring all your medicine bottles with you for the nurse or doctor to review during your appointment. A legible list of all the medicines you take is also important because some drug names are very hard to pronounce. Simply mispronouncing a drug name has led to mistakes.

In one case, a woman mispronounced the medicine she took for osteoporosis, **Actonel** (**risedronate**), placing the emphasis on the middle part of the name (ac-ton'-nel). The medicine was misunderstood as the heart and blood pressure medicine, **atenolol** (**Tenormin**), which is pronounced as "a-ten'-a-lul." In another instance, **Plavix** (**clopidogrel**) was misheard as **Paxil** (**paroxetine**). **Plavix** slows blood clotting and **Paxil** is used to treat depression. This mix-up could cause problems since **Plavix** may need to be stopped before surgery.

Accurate communication about your medicines with nurses and doctors before surgery can boost your safety and help to avoid serious mistakes.

Table 1. Migraine medicines and antidepressants that should not be taken together.

Medicines for depression that increase serotonin in the brain (improves mood)	Medicines for migraines that increase serotonin in the brain (reduces pain)
Celexa (citalopram) fluvoxamine Lexapro (escitalopram) Paxil (paroxetine) Prozac (fluoxetine) Symbyax (olanzapine/fluoxetine) Zoloft (sertraline) Cymbalta (duloxetine) Effexor (venlafaxine)	Amerge (naratriptan) Axert (almotriptan) Frova (frovatriptan) Imitrex (sumatriptan) Maxalt and Maxalt-MLT (rizatriptan) Relpax (eletriptan) Zomig and Zomig-ZMT (zolmitriptan)

*Meridia, a medicine approved for weight loss but not depression, also increases serotonin in the brain and should be used with caution when taking other medicines that increase serotonin.

60-second safety tip

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The names and packaging of these medicines, both made by Sunmark, look very similar (see the photo). Both medicines also come in four-ounce bottles and the same size boxes. It would be easy to pick up the wrong medicine unless you read the label carefully. If you purchase either medicine, be sure you have the correct product.



Public Health Advisory: Migraine medicines and antidepressants

Late in 2006, the Food and Drug Administration (FDA) updated a Public Health Advisory that had been issued about taking certain medicines for migraine headaches with certain types of antidepressants. The medicines involved are listed in **Table 1** (bottom left). Both types of medicine increase the amount of serotonin in the brain. Serotonin is a chemical that improves mood and also reduces pain. Taking these migraine medicines and antidepressants together can lead to too much serotonin in the brain, risking a life-threatening condition called serotonin syndrome. Some consumers have had symptoms of restlessness, hallucinations, loss of coordination, fast heart beats, sudden changes in blood pressure, increased body temperature, nausea, vomiting, and diarrhea. If you are taking any of the medicines in Table 1 together, let your doctor know right away. Visit the FDA website at: www.fda.gov/cder/drug/advisory/SSRI_SS200607.htm for more information on this Public Health Advisory.

Contact Information



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▶ Brand name medicines appear in green; generic medicines appear in red.