

Dilating Eye Drops

WHAT ARE DILATING EYE DROPS?

Dilating eye drops make the pupil of the eye bigger. The pupil is the black circle in the center of the colored part of the eye (iris) [See Figure 1]. There are two main types of drops that work on the pupil. One type makes the pupil bigger (dilation). The other type relaxes the eye's ability to focus (cycloplegia)[See Figure 2]. All these changes to the eye are temporary, and usually last for a short amount of time (see "How long do dilating drops last?" below). The two kinds of drops are usually used together, either as two separate drops, as a single combination drop, or as a spray.



Fig. 1: Photo of an eye with a dilated pupil.



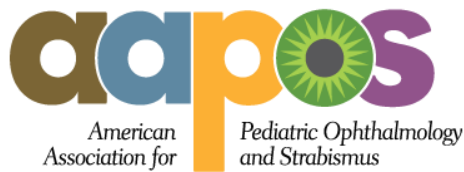
Fig. 2: Cyclopentolate (Cyclogyl), a commonly-used dilating eye drop that makes the pupil large and relaxes the eye's ability to focus.

WHY ARE DILATING DROPS NEEDED?

A large pupil from dilating drops allows the ophthalmologist to see the inside of the eye (parts of the eye behind the iris) and diagnose many different eye problems. Without the eye drops, the pupil becomes very small when an ophthalmologist shines a light in the eye. This is a normal response to light but does not allow for a good examination of the inside of the eye. Also, relaxing the focusing muscles of the eye with the eyedrops is the best way for the ophthalmologist to check whether a child needs glasses ([refractive error](#); [glasses for children](#)). In some cases, dilating eye drops are also used to treat eye problems, such as [amblyopia](#), inflammation, and nearsightedness ([myopia](#)).

HOW LONG DO DILATING DROPS LAST?

Dilating eye drops used for looking at the eyes will make the vision blurry, especially when focusing on things close up. This usually lasts anywhere from 4 to 24 hours. How long the drops last depends on how strong the drop is and type of the drop, and on how the person reacts to the drops. Dilation or a larger pupil size can last longer (24-72 hours) in people with lighter colored eyes. It is not unusual for the drops to get in one eye better than the other, so don't be worried if the pupils are not the exact same size when they are dilated. Children need stronger drops than adults to measure their need for glasses ([refractive](#)



[errors in children](#)), so eyes may stay dilated longer for children than they do for adults. Weaker drops may be used for premature babies or people with a seizure history, so those drops may wear off faster. Dilating eye drops used to treat certain eye diseases usually last longer than those used for the eye exam, sometimes lasting up to 2 weeks. Even though some eye drops last longer, your ophthalmologist may still ask you to use the drop daily or twice a week for treatment.

WHAT ARE THE SIDE EFFECTS OF DILATING DROPS?

Light sensitivity and blurry vision while focusing at near are common side effects. Both of these slowly go away within 4 to 6 hours. Sunglasses can help with sensitivity to light after a dilated eye exam. Children can usually go back to school, but teachers should expect them to have blurry vision while reading. Allergic reactions to dilating eye drops are rare but can include eyelid swelling and red eyes. Other possible side effects from Atropine (a stronger and longer acting eye drop) include fever, dry mouth, redness of the face, and a fast heartbeat. Atropine can also cause the eye to start crossing ([esotropia](#)), or make an existing eye turn worse. When treating nearsightedness ([myopia](#)) with Atropine, a very weak form of the medicine is used. A weaker form of Atropine medicine has very few side effects.

DO DILATING EYE DROPS BURN OR STING?

Like most eye drops, there may be some stinging right after the eye drop is used. This usually lasts only a few moments. A numbing eye drop can be used before the dilating drop to have less stinging but this numbing drop may cause stinging of its own.

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