

## Eyedrops

Eyedrops contain medicines that are used to treat many eye diseases and conditions. Some are also helpful for relieving eye discomfort.

It is important to remember that all medicines, including eyedrops, can cause side effects. Some side effects caused by eyedrops are local, which means they affect just the eyes. Examples of local side effects include redness of the eye, eye irritation or blurred vision.

Most of the medication in eyedrops stays in or near the eyes, but a small amount affects the rest of the body. Eyedrops are absorbed into the body's bloodstream through mucous membranes lining the surface of the eye, the tear drainage system, and nose. Once in your bloodstream, the eyedrops can cause side effects in other parts of the body. Such side effects can include slow heart rate, dizziness and headache. In general, however, there is less risk of side effects with eyedrops than with oral medicines.

## Using medications wisely

When your ophthalmologist (Eye M.D.) prescribes any medication, you should always be aware of the following important information:

- Make sure you know the name of the medicine. Medications may have a generic name as well as a brand name; the generic name can be found in fine print on the label.
- Make sure you know how often you need to take the medicine.

- Call your ophthalmologist if you are unclear as to how to use the new medication or if you have questions.
- If uncomfortable symptoms occur when using eyedrops, you should call your ophthalmologist.

Sometimes your ophthalmologist can prescribe another medication or suggest a different method of treating the problem. At times the eyedrops are so important that you may have to tolerate some mild side effects in order to treat the condition.

## Allergies

Be sure to let your ophthalmologist (and all of the doctors who care for you) know if you have any allergies to any medications.

Any medicine can cause an allergic reaction or allergy, even nonprescription eyedrops containing chemical preservatives. Sometimes eye medications are chemical "relatives" of drugs that may have caused you problems in the past. **It is very important to tell your doctor of any past allergic reactions.**

Allergic reactions to eyedrops often include itching, swelling or a rash around the eyes. If your eyes or eyelids become more red, itchy or swollen after you begin using an eyedrop, you should contact your ophthalmologist.

## Eyedrops during an examination

### DILATING DROPS

Your ophthalmologist uses eyedrops to dilate, or enlarge, the pupil of the eye. This allows examination of the inside of your eye.

Because driving may be difficult immediately after a dilated eye examination, ask your ophthalmologist if you need to make arrangements for a ride home afterward.

### ANESTHETIC DROPS

Anesthetics are painkillers that numb the eyes within a few seconds. These drops should be used only in the doctor's office and never at home. Repeated use at home can harm the surface of the eye, which could lead to an infection or serious scarring of the cornea.

## Nonprescription eyedrops

You can buy many eyedrops without a prescription. Even though you can buy them over the counter, these eyedrops may still contain medications.

Eyedrops should be used according to the directions of your physician and the directions on the package. Be aware of any symptoms you may experience since nonprescription eyedrops can also cause an allergic reaction.

Drops called artificial tears are solutions that can soothe irritated or dry eyes. Most artificial tears can be used five to six times per day. If drops are needed more frequently, preservative-free artificial tears are available and can be used as often as needed.

Decongestant eyedrops contain a medicine that whitens the eyes by shrinking, or constricting, blood vessels. While decongestant drops don't improve the health of your eye, they make the eye appear less red. If you use these eyedrops infrequently and for a short duration of time,

they are usually not harmful. If you use them often, your eyes may actually become more red and irritated when the eyedrops are discontinued.

## Prescription eyedrops

### STEROID (CORTICOSTEROID) EYEDROPS

These eyedrops are extremely potent and should be used only under your ophthalmologist's guidance. Using them for an eye problem without telling your ophthalmologist is dangerous.

Whenever corticosteroids are used, they reduce your eye's ability to fight infection and to repair injury. Using them over time can lead to glaucoma or cataracts, which can cause loss of vision.

In spite of the risks, the benefits of using steroids are so important in treating certain conditions that they must be prescribed. The generic names of common corticosteroids are:

- Prednisolone;
- Dexamethasone;
- Loteprednol;
- Fluorometholone;
- Medrysone;
- Rimexolone.

### EYEDROPS TO TREAT INFECTION

Your ophthalmologist may prescribe eyedrops if you have an infection that can be treated by a certain medication. Not all "red" or "pink" eyes necessarily mean an infection is present.

No single medicine is effective against all types of infection. Some infections cannot be treated with eyedrops.

The American Academy of Ophthalmology is an organization of nearly 30,000 ophthalmologists (Eye M.D.s) dedicated to preserving eye health and sight.

American Academy of Ophthalmology  
P.O. Box 7424  
San Francisco, CA 94120-7424  
www.aao.org

eyeSmart®  
www.geteyesmart.org

COMPLIMENTS OF:

©2011 American Academy of Ophthalmology  
The American Academy of Ophthalmology, The Eye M.D. Association  
and the Academy logo are registered trademarks of the American  
Academy of Ophthalmology.

051133-2 Academy reviewed 09/11 ISBN 978-1-56055-624-4

AMERICAN ACADEMY  
OF OPHTHALMOLOGY  
The Eye M.D. Association

## Eyedrops A Closer Look

Once treated for an eye infection, you should notice improvement in your condition within several days. If your condition becomes worse while you are using the eyedrops, call your ophthalmologist.

### EYEDROPS TO TREAT GLAUCOMA

Glaucoma is a disease of the optic nerve often related to high pressure inside the eye. Glaucoma is a leading cause of blindness, but loss of sight from glaucoma can be prevented with early treatment. Eyedrops applied every day are used to lower the pressure within the eye.

Glaucoma medications reduce the fluid pressure in the eye either by decreasing the amount of fluid forming in the eye or by increasing the eye's ability to drain fluid. This fluid, called aqueous humor, is inside the eye and is different from your tears.

### Watching for side effects

Different glaucoma eyedrops can cause different side effects. Because the glaucoma medicine can keep you from losing your sight, you may have to tolerate some mild side effects.

### BETA-BLOCKERS

They can cause:

- Breathing problems for those with asthma or emphysema;
- Slow or irregular heartbeat;
- Depression;
- Change in sex drive (impotence).

### ALPHA AGONISTS

They can cause:

- A red eye or red skin around the eye;
- Dry mouth;
- Fatigue or decreased energy.

### CARBONIC ANHYDRASE INHIBITORS

They can cause:

- Eye redness or irritation;
- Skin rash (especially in individuals with known allergy to sulfa drugs);
- Change in taste (especially with carbonated beverages);
- Upset stomach or nausea;
- Fatigue and decreased energy.

### PROSTAGLANDIN ANALOGS OR PROSTAMIDES

They can cause:

- Eye redness or irritation;
- A change in eye color (mostly in hazel or blue to green eyes);
- Increase in thickness and number of eyelashes;
- Joint aches or flu-like syndrome.

### MIOTICS

They can cause:

- Blurred vision;
- Headache;
- Retinal detachment.

Retinal detachment is rare. If you notice dark floating spots or flashing lights in your vision, call your ophthalmologist immediately.

Many new eyedrops are becoming available. As with any medication, eye medications can cause eye allergies, irritation or other side effects, as listed above.

If you experience any side effects, contact your ophthalmologist immediately. Tell your other doctors if you are using eyedrops for glaucoma.

### How to insert eyedrops

Putting drops in your eye may seem difficult at first but becomes easier with practice. Follow these steps:

1. Wash your hands prior to using your eyedrops.
2. Remove the cap. Do not touch the dropper tip.
3. Tilt your head back slightly.
4. Pull your lower lid away from the eye to form a "pocket" by:

(A) pulling the lower lid down with your index finger or

(B) pinching lid outward with thumb and index finger.

5. Hold the dropper tip directly over the eyelid pocket. (You may wish to brace your hand against your face or forehead to keep it steady.)
6. Look up and let the eyedrop fall into the pocket without touching the bottle to your eye or eyelid (to prevent contamination of the bottle).
7. Close your eyes (do not blink) and apply pressure to the point where the lids meet the nose. Hold for two to three minutes.

8. Before opening your eyes — and this is very important — wipe unabsorbed drops and tears from the closed lids with a tissue. Then open your eyes.

9. If you need to take more than one kind of eye medication at the same time, wait three to five minutes before using the second drop.

