



## GRAVES' DISEASE & THYROID FOUNDATION

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## Dry Eyes, Watery Eyes, Itchy Eyes by Peter W Shenon, MD

Dry eyes is a very common problem caused by a lack of normal tears. It is the most likely cause of itching, burning, tearing, and sandy-feeling eyes. Other symptoms can be contact lens intolerance, chronic redness of the eyes, an intermittent foreign body feeling (something in the eye), or recurrent eye infections. Some patients with dry eyes may have crusting on the edge of the eyelids or yellow growths on the inner corners of the white of the eye. Patients with Graves' disease are quite likely to have dry eye symptoms. Infrequent blinking is a problem with Graves' disease, and this will allow increased evaporation of tears from the eye. Also, when there is some protrusion of the eyes, this is often accompanied by tearing and a foreign body sensation. The more exposed the eyes are, the more quickly they will become dry.

Most people think that itching eyes are caused by allergies. The fact is that

itching eyes, particularly in the inner corners, is usually due to the eyes being dry. Itching of the eyes due to allergies (i.e. allergic conjunctivitis) is usually associated with a white stringy discharge and/or seasonal nasal allergies. If your eyes water and tear when you are outdoors in the wind, or when you are reading or watching television, it is probably because your eyes are dry! The excess tearing is really a response to the irritation caused by the eyes being too dry. Many patients with tearing eyes have no other dry eye symptoms and will blame their tearing on other causes. In addition, "dry eyes" is the most common cause of contact lens failure. This is true for all types of lenses, including extended wear and disposable lenses. If the dry eyes are treated correctly, then contact lens patients should be able to wear their lenses longer and more comfortably.

### How are Tears Produced?

The lacrimal gland, located in the upper outer side of the eye, produces the tears. The tears wash across the eye and drain away through the drainage ducts into the nose. There are two drainage ducts in each eye, one in the upper lid and one in the lower lid.

There are two types of tears. One is the "constant" tear, which, if produced in normal quantities, will keep the eyes moist and comfortable. The second type of tear is the "reflex" tear which is a response to emotions, a foreign body in the eye, or a dry eye. However, these "reflex" tears are not good tears. They are too watery and will not relieve the dryness or the dry eye symptoms.

### Why Dry Eyes?

As we get older our tear glands produce fewer and fewer tears, and by age 65 our tear production is less than half of what it was at age 20. However, dry eyes can be a

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problem for any age group (including teenagers); and it is more common in women than men. Some medicines such as antihistamines, birth control pills, diuretics, and some tranquilizers and antihypertensives, may cause the eyes to be drier.

Dry eyes can be associated with arthritis. If you have dry eyes, a dry mouth and dry mucous membranes elsewhere in the body, plus arthritis, then you probably have what is called Sjogrens Syndrome.

### **Treating Dry Eyes**

Artificial tears are the basic treatment for dry eyes. They should be used frequently enough to keep the eyes comfortable. If you use tears only two or three times a day, then you can probably use tears that come in a bottle, such as Hypo- Tears®, Murine®, or Moisture Drops®.

However, any eye drops that come in a bottle will have a preservative. If you use these solutions too frequently, you may become sensitive to the preservative; or, the preservative may actually damage the surface cells of the eye. We strongly recommend the use of preservative-free tears such as Cellufresh®, Refresh® or

Tears Naturale Free®. These come in small individual containers. They are more expensive than other artificial tears, and you do not need to throw them away after just one use. Put a drop in each eye, and then set the container aside to use the rest later. You will probably find these tears to be the most comfortable, and will use them instead of the tears in a bottle. Try the different ones to see which drop works best for you.

If your eyes water, tear, or itch, you are probably not using the artificial tears often enough. Remember, the watery tears, produced when the eye is too dry, are not good quality tears. They won't relieve your symptoms and they won't relieve the dryness. Therefore, the more your eyes water, the more you need to use artificial tears! If your eyes are even moderately dry, then artificial tears alone may not be adequate treatment. Punctal occlusion ("punctoplasty") is a simple, safe office procedure that may dramatically improve the comfort of your eyes. It was developed by an ophthalmologist twelve years ago.

### **Punctoplasty is Safe and Effective**

Punctoplasty is safe and effective and does not interfere with the production of tears from the lacrimal (tear) gland. The area of treatment is on the edge of the lid, not the eye itself. The procedure is reversible, but this has been necessary for only one in every 600 patients.

The idea is to block your lower drainage ducts to keep your tears from draining away too quickly. This is first done on a temporary basis by inserting tiny collagen plugs in the lower drainage ducts (a painless procedure). These plugs last three to four days, and then they dissolve. If your eyes feel better with the temporary plugs, you then return to the doctor's office to have the ducts closed permanently. This procedure does not interfere with your vision, and you can drive home or return to work after the treatment.

The permanent procedure can be done with a cautery, laser, or with silicone plugs. A mild, local anesthetic is used so the actual procedure is painless. The cautery is the preferred method since it is the least expensive and has the fewest complications. The laser method will be much more expensive and frequently

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needs to be repeated. The silicone plugs are moderately expensive, are more likely to irritate the eye and can also spontaneously fall out of the duct.

After the procedure you will still have the upper drainage ducts to carry away any excess tears. You will still need to use artificial tears, but your eyes should feel better in general and you should not need to use the tears as often. If your eyes are extremely dry, it is sometimes helpful to close the upper drainage ducts as well.

Punctoplasty has been extremely beneficial for most patients with dry eyes. Patients with tearing eyes will usually get almost immediate relief from their symptoms after the procedure, because blocking the drainage ducts keeps the normal tears from draining away too quickly. These normal tears relieve the dryness, and then you will no longer get the reflex, watery tears. Contact lens wearers should be able to wear their lenses longer and more comfortably.

Who should you see to have this procedure done? An ophthalmologist (an M.D.) can do both the temporary and permanent procedures

and would have the most experience. Optometrists in some states can insert the temporary collagen implants, but they cannot do the cautery or laser punctoplasty. The procedure was first performed in 1980 and is now widely done in the United States. Some doctors may not do the procedure however, so call the doctors in your area to see who does do it.

### **Other Benefits of Punctoplasty**

Dry-eyed patients with glaucoma benefit because they no longer need to close their eyes for two minutes, or put their fingers over the inner corners of their eyes, to keep their glaucoma drops from draining away too quickly. Also, the glaucoma drops may be more effective since they will remain in contact with the eyes longer.

Some patients with nasal congestion, sinusitis, "postnasal drip," chronic cough, snoring, and middle ear problems have reported some relief from these symptoms following punctoplasty. The reason for this is that if the eyes are dry, then the lacrimal glands are stimulated to produce more tears. At the same time, it is likely that the tissue lining the nasal passages is also overstimulated. After

punctoplasty, the eyes will be less dry and there will be less stimulation of both the lacrimal (tear) glands and the lining of the nasal passages.

### **If Your Eyes are Very Dry**

Use Celluvisc® which is also a preservative free tear. It is a thicker drop and may blur your vision slightly and momentarily, but it can be a very comfortable artificial tear. Use it at bedtime for additional relief while you are asleep. If you do not see it on display, ask your pharmacist for assistance.

Get a cold water humidifier at the drug store. This will keep the atmosphere in your home from becoming too dry. A pan of water on the stove or radiator will also help humidify your home. Eyeglasses that wrap around your face or with side shields will help reduce the evaporation of tears. Swimming goggles worn in the garden or when nobody else is around will also help retain the moisture in your eyes.

Use the artificial tears more often if you are exposed to: air conditioning, cigarette smoke, drafty areas, heated rooms in winter, hair dryers, or wind or sun. In an office, it is usually the air conditioning and not

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the fluorescent lights that irritates your eyes.

### **Additional Thoughts on Treating Dry Eyes**

Avoid over-the-counter “eye whiteners” that contain either naphazoline, phenylephrine, tetrahydrozoline or oxymetazoline and are not specific for dry eyes. If you use these drops too often they can actually make your eyes look and feel worse.

If you are using medical eye drops (such as eye drops for glaucoma), then don’t use any artificial tears within 10 minutes before or after using the medical eye drops so as not to wash the medicine out. Also, if your medical eye drops sting when you put them in, you might find that using the artificial tears more often in between will reduce the irritation of the medicine.

Be sure and use artificial tears frequently while staring at television, a movie, a computer monitor, or while reading for long periods of time. Since your tear layer is not entirely normal, you may need to blink a little more at these times to keep your tears evenly distributed over the surface of your eyes.

For women who are taking supplementary estrogen, sometimes too much or too

little estrogen will affect the dryness of the eyes. Therefore, ask your doctor if your estrogen dose is correct for you.

Eye ointments are available, but for most patients, they really are not that beneficial in treating dry eyes. In my experience, patients’ eyes will feel much better after treatment with punctoplasty, and they won’t need to use eye ointments.

In summary, dry eyes is an extremely common problem that can be treated successfully. If artificial tears do not relieve your dry eye symptoms completely, then find an ophthalmologist who does punctoplasty. You will probably be delighted with the results and your eyes will feel better the rest of your life.

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