

Thyroid Eye Disease

What is Thyroid Eye Disease?

This is a disorder where the fat and muscles behind and around the eyes become swollen. There is still much that we do not know about it. However it seems to occur only in people who have a certain type of thyroid problem called an auto-immune disorder. Most commonly, it happens in people with an overactive thyroid gland; a condition called Graves' disease. To begin with either one eye or both have only a "stary" appearance. They may water and be sensitive to light and especially wind. They may feel sticky in the mornings and gritty during the day. In more severe cases the lids may not close properly. If the muscles which make the eyes move also get inflamed and swollen, the eyes are pushed forward and you may get double vision. This may only be on looking in one direction, but it can worsen so that double vision is there all the time. If the eyes protrude a lot, the white of the eye becomes red (like conjunctivitis). If they protrude even further, vision can be affected. This happens either because the front of the eye (the cornea) gets dried out, or because the optic nerve which carries the images back to the brain is stretched.

How does it occur?

In this condition, like all auto-immune disorders, white blood cells called lymphocytes collect in the fat and muscles around the eye. They make a chemical (protein) which causes swelling by allowing seepage of fluid into the fat and muscle tissue.

Why does it occur?

We do not really know. In some people it happens at the same time as the overactive thyroid gland; in some it happens before the thyroid gland becomes overactive, or even with an underactive or apparently normal thyroid gland. In some people it only comes on months or years after the original thyroid condition has been diagnosed and treated. We don't know why it may affect only one eye, or one eye more than the other. It is certainly not caused directly by having too much thyroid hormone. Treating the overactive thyroid gland does not usually affect the way the eyes behave: in fact the eyes may get briefly worse, particularly if the thyroid is allowed to become temporarily underactive. It tends to run in families; more so in females. It is also more common in smokers.

Treatment Involved

Your doctor will want to check a few points. A special x-ray called a CT scan may be done to confirm the diagnosis and make sure there is no other cause for your eye problem. An eye specialist may use a special chart to record

Factsheet

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how your eyes move and will ensure that the pressure in the eye is not high (glaucoma). He will also want to make sure that the optic nerve which carries the seeing image back to the brain is not affected. In mild cases, your doctor may not wish to do more than give you lubricating eye drops (artificial tears). Sometimes taping down the lid overnight with a mild adhesive strip like micropore helps to reduce the discomfort next morning. It avoids the eye drying out. You could try propping yourself up on more pillows or tilting the head end of the bed up on one or two bricks (about 6 inches: 15 cm). Some doctors will prescribe a diuretic to offload water to help reduce the swelling. Double vision is annoying, and special spectacles with prisms can be made to help correct this problem. If the eyes are getting worse, your doctor may suggest steroids (anti-inflammation tablets). These may need to be taken for some months, but often in reducing dosage. They are usually very effective. Some doctors will also suggest radiotherapy to the eyes. This is not because you have any sort of cancer cells, but because radiotherapy can dampen down this type of inflammation. The treatment is given daily over a couple of weeks. Other so-called immune-blocking drugs may also help sometimes.

Operations are necessary in certain cases, either because of severe protrusion of the eyes or because of affected vision. Sometimes they are done just for cosmetic reasons. One operation is done through the nose or gums. Bone is nibbled away from around the orbit of the eye to make more space for it. Another type of operation is done on the tendons of the eye muscles. One benefit of this is to allow the upper lid to "hang" lower and close more easily: other types of operation are done to reset the muscles into the eyes and improve double vision. Sometimes even "simple" plastic surgery to the lids can be done, since they tend to get rather baggy when the inflammation has settled.

During Treatment

Please tell your doctor immediately if your vision changes for the worse at any time. If you are being treated with steroids, indigestion can occur but can be quite easily treated. You will also tend to put on weight (temporarily) and may develop high blood pressure or diabetes, which your doctor will check for.

After Treatment

You will need careful checks regularly for some years through your doctor and eye specialist. More than one operation may prove to be necessary to get the right end-result. Be patient, although we appreciate how self-conscious you may feel.

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If Left Untreated

In mild cases, nothing. Thyroid eye disease tends to "burn itself out" over a period of months or years in most patients. In more severe cases, abnormality of the eyes may be permanent. Although it is a rare event, once vision is lost, it cannot always be completely restored: prompt action lessens this risk.

Effects on Family

You may feel self-conscious, but it is probably less obvious to others than you think. Dark or tinted spectacles may help when you are out and about.

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