

Thyroid Eye Disorders

What are thyroid gland disorders?

The thyroid gland, located in the neck, produces thyroid hormone which helps regulate our metabolism. It may produce either too much thyroid hormone (hyperthyroidism) or too little (hypothyroidism). Hyperthyroidism may be associated with Graves' disease and Graves' disease may be associated with eye and vision problems.

Initially, the symptoms of hyperthyroidism are subtle. Fatigue, tiredness and malaise may be the first symptoms. In addition, hyperthyroid patients may lose weight, have a fast heartbeat, be intolerant to heat and have diarrhea. Their hair may become finer and they may lose hair.

Hypothyroidism, in contrast, may result in weight gain, constipation and a slow heartbeat. A blood test can detect either hyperthyroidism or hypothyroidism.

How does hyperthyroidism affect the eyes?

Initially, the eyes feel dry gritty and irritated. There can be a sense of pressure behind the eyes, but rarely pain. Several changes occur around the eye that result in a staring appearance. The eyelids swell and are drawn apart, and the eyes become red. The muscles behind the eye become

swollen, pushing the eye forward and often limiting eye movement, which may lead to double vision. If the muscles become very swollen, they can push on the optic nerve, which may cause vision loss.

What will happen to the eyes over time?

The symptoms mentioned above commonly come and go from day to day, week to week or month to month. Over time (up to 36 months) the fluctuating symptoms will disappear but the staring appearance, double vision, and eyelid swelling may persist. It is impossible to predict which patients will spontaneously improve.

Often hyperthyroidism affects each eye differently, so the face may look imbalanced. Eye differences can also occur even when there are no blood findings to indicate hyperthyroidism.

How is hyperthyroid eye disease treated?

Once an overactive thyroid gland is suspected, the thyroid function must be evaluated and appropriately treated by your primary physician or a physician specializing in thyroid abnormalities (endocrinologist). Eye symptoms may continue to progress even after treatment returns thyroid levels to normal. Therefore, any eye symptoms should be checked and followed-up by an ophthalmologist.

During the first phase of the disease, eye symptoms may wax and wane from day to day, week to week or month to month.

However, after some time, occasionally as long as 36 months, the eye symptoms stabilize. The eye disease is active during the waxing and waning phase and then stabilizes during the second phase. Treatment is different during these two phases.

Treatment during the active phase of the eye disease focuses on reducing discomfort, avoiding double vision and preserving sight. Discomfort may be improved by using artificial tears or ointments, elevating the head of the bed at night, using dark glasses and taping the eyelids closed at night. Occasionally, corticosteroids (prednisone) may be required to decrease the swelling but may produce their own side effects. Double vision is usually treated during the active phase by patching one eye or using prisms in glasses. Thyroid eye disease rarely causes vision loss. However, vision needs to be monitored by an ophthalmologist. If necessary, corticosteroids, surgery or radiation therapy may be recommended.

Once the eyes stabilize, treatment is directed toward correcting unacceptable permanent changes. Surgery may be recommended to reduce protrusion of the eyes. Eye muscle surgery may improve double vision. Eyelid surgery may also be recommended to correct the staring appearance. Thyroid eye disease may run a prolonged course and be emotionally stressful. One's stressing work and interpersonal relationships. Double vision may make walking or driving difficult or risky.

Fortunately, the disease will stabilize. If the eyes do not improve acceptably on their own, surgery can help. However, patience is necessary during the active stage.

Why are regular medical eye examinations important for everyone?

Eye disease can occur at any age. Many eye diseases do not cause symptoms until the disease has done damage. Since most blindness is preventable if diagnosed and treated early, regular medical examinations by an ophthalmologist are very important.

Compliments of Your Ophthalmologist

Daniel B Pope, M.D. PA

**426 Manatee Ave W
Bradenton, FL 34205**



AMERICAN ACADEMY OF OPHTHALMOLOGY
THE EYE M.D.s
P.O. Box 7424, San Francisco, CA 94120-7424
<http://www.eyenet.org>

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