Graves' Disease

What is the thyroid?

The thyroid is a gland in the front of your neck. It makes hormones to help control your metabolism, which is how your body turns food into energy. Some people have a condition where their body's immune system attacks the thyroid gland. When this happens, their thyroid gland produces too much hormone. This is called hyperthyroidism, or Graves' disease. Graves' disease affects muscles and tissue surrounding the eyes.

How does Graves' disease affect the eyes?

Too much thyroid hormone can cause eye and vision problems in some people. Symptoms are different among people, and they can come and go.

Here are some of the problems.

Eye protrusion and eyelid retraction caused by Graves' disease.

Eyelid retraction. When the muscles around the eye swell and push the eye forward, the upper and lower eyelids are pulled or retracted. The white parts of the eye become more visible.

Eye protrusion. Having too much thyroid hormone causes the muscles in and around the eye to swell and push the eye forward. This eye bulge makes someone look as if they are constantly staring. It is a common symptom of Graves' disease.

Dry eye. With eyelid retraction and eye protrusion, the eyes are exposed to wind and dust. This can make the eyes very dry. Dry eye makes the eyes feel very scratchy and uncomfortable, and makes vision blurry. Being very sensitive to light is also a problem. Severe dry eye can eventually damage the cornea, the clear, front window of the eye.

Vision changes. Muscle swelling can cause double vision. That swelling can also lead to pressure on the optic nerve. That is the nerve connecting the eye to the brain. When the optic nerve is damaged, it causes blindness.

Eye "bags." When the eyelid swells, it can cause tissue around the eye to bulge. This looks like "bags" around the eyes, and can make someone look older than they are.

Treating eye problems from Graves' disease

Your ophthalmologist will examine your eyes and keep track of your symptoms. If your eyes continue to protrude or eyelids retract, treatment may be needed.

Here are some treatment options:

- Relieve dry eye symptoms with artificial tears or a lubricating ointment.
- Take steroid medicine to control eye muscle swelling.
- Wear sunglasses to help with light sensitivity.
- Put cool compresses on the eyes to help reduce irritation and swelling.
- Wear special eyeglasses with prisms in the lenses to help reduce double vision.

Your ophthalmologist may recommend surgery to help fix eye muscle problems from Graves' disease. Here are some surgery options:

- Reposition eyelid muscles to fix eyelid retraction, relieving dry eye and improving how the eye looks.
- Reposition the eye, the eye muscles or both to help improve vision and the bulging eye appearance.
- Remove scar tissue from eye muscles to improve how those muscles work.
- Relieve pressure on the optic nerve to prevent vision loss.

If you have Graves' disease, talk with your ophthalmologist about ways to relieve your symptoms.

Summary

Graves' disease (hyperthyroidism) is a problem with the thyroid gland. It is when the thyroid gland makes too much hormone. Muscles and tissue around the eye are affected. People with Graves' disease may have retracted eyelids or bulging eyes. They can suffer from dry eye and double vision.

Artificial tears or ointment can relieve dry eye. Steroid medicine may be used to reduce eye swelling. Prisms in eyeglasses help correct double vision. Surgery can also help fix the muscle problems of Graves' disease.

Get more information about Graves' disease from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/graves-link**.

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