

ORBIT

What is the function of the Orbit?

The orbit is the bony “socket” that contains the eyeball and associated structures like the lacrimal (tear producing) gland, nerves, blood vessels, and extraocular muscles. It protects the sensitive structures required for normal vision, especially the eye itself. It also anchors the extrocular muscles that moves our eyes.

What can go wrong with the orbit?

Orbital disease is a general term used to describe dysfunction of any part of the bony orbit or its soft tissue contents. Orbital disease can arise from any of the structures within the orbit. Sometimes the orbit may be secondarily affected by problems arising in surrounding areas the brain and the sinuses adjacent to the nasal cavity.

What are the common causes of such diseases?

Thyroid gland related orbital involvement and tumors are the most common causes of orbital disease. Infections and inflammations of the orbit also occur, but less commonly.

How will I know if I have orbital disease?

The bony orbit cannot expand to accommodate swollen tissues. Therefore the eye protrudes (termed proptosis or exophthalmos). Severe proptosis can affect closure of the eye causing damage to the cornea (exposure keratopathy). This causes drying of the cornea and subsequent corneal ulceration if untreated.

Increased pressure within the orbit can compress the optic nerve (optic neuropathy) resulting in progressive visual loss that can be permanent.

Involvement of the extraocular muscles or their nerves can cause the eye to be misaligned resulting in a squint (strabismus) and double vision (diplopia)

Detecting orbital disease and its cause involves a detailed eye examination including ENT and even neurological evaluation in certain instances.

All patients with orbital disease will need some from of imaging, usually CT or MRI scans (and sometimes both since these tests yield different information that may help diagnose the condtion).

Patients with thyroid related eye disease also need evaluation by an endocrinologist (hormone specialist).

How can these be treated?

Treatment of orbital disease may be surgical or medical depending on the diagnosis. Some orbital disease, particularly that due to infection or immune mediated inflammation may be treated with orally administered drugs. Tumors may need surgical removal (sometimes along with radiation therapy and chemotherapy).

Recent advances in the management of these diseases

Improved imaging techniques have enabled better characterization of orbital lesions. Newer surgical options include removal of certain orbital lesions through the nose (transnasal endoscopic surgery) with no scar on the face.

General information

Thyroid related eye disease is the most common of all orbital disease. Check with your eye doctor if you feel that your eyes look prominent or if you have a dryness of the eye, squint, double vision or visual loss.