



The Ophthalmology Department at the

TOBB ETU Medical Faculty Hospital provides the treatment of many eye diseases that may affect our vision or cause different problems regarding our most important sense organ, our eyes, by the most advanced technological devices. In the Ophthalmology Department, all refractive errors and all other ophthalmic diseases are diagnosed and treated in patients of all ages.

Diagnostic and treatment options in our

Ophthalmology Department:

Diagnostic and treatment options in our Ophthalmology Department:

Cataract Surgery

Cataract is an eye disease that results in decreased vision according to the loss of transparency of the lens in the eye, and approximately 90 % of cataract cases are associated with aging. Cataract development can also be observed due to trauma, systemic diseases, eye disorders such as uveitis, and the use of drugs such as steroids. Surgery is the only treatment for cataract disease, which is caused by the lens of the eye losing its transparency and becoming dull.

Keratoconus Diagnosis and Treatment Methods

Keratoconus is characterized by the thinning and steepening of the cornea, which is called the transparent refractive layer at the front of the eye and similar to watch glass, and resulting in progressive myopia and astigmatism. It tends to progress between the ages 20 and 40, and the progression may be stopped after the age of 40. As the disease is diagnosed at the early stages in our clinic, visual acuity increases via eyeglasses and contact lenses. In addition, the treatments to prevent its progression can be performed by surgical methods such as corneal cross-linking (CCL)and intra-corneal ring implantation.



The application of Glasses and Contact Lens

The eyeglass prescriptions are exactly determined using advanced autorefractometer-keratometer devices and subjective vision techniques. The application of soft or rigid contact lenses are also performed to correct refractive errors such as myopia, hyperopia and astigmatism. In addition to comprehensive ocular examinations of newborn, the refraction errors from 4 months of age and possible related amblyopic eye are diagnosed by autorefractometer specialized for children and babies.

Retinal Diseases

The retina covers the posterior inner wall of the eye and consists of a network included light sensitive cells for visual system. The light rays are focused onto the central part of retina known as macula or yellow spot that makes vision clearer and more detailed. Retina vascular diseases associated with diabetes or hypertension are the most common causes of vision loss. Either retinal hemorrhages or edema in the central part of the retina is responsible for visual loss. Argon laser photocoagulation and intravitreal injections are the main treatments.

Age-related macular degeneration impacts central vision due to the fluid accumulation at the visual point. The preventive treatment is medical for dry macular degeneration. The supplementary formulations including anti-oxidant vitamins such as A, C, E, lutein and zinc are used to prevent or slow the progression of disease. Photodynamic therapy and intravitreal injections are preferred in the wet macular degeneration. In our clinic, diagnosis and follow-up of retinal diseases are performed with detailed eye examination, optical coherence tomography (Spectral-Domain Optical Coherence Tomography Heidelberg Engineering), fundus autofluorescence imaging, fundus fluorescein angiography, color fundus photography and intraocular ultrasonography.

Strabismus

Strabismus or crossed eyes is a condition in which the eyes do not line up with one another due to the deterioration of the parallelism of the extraocular muscles. The deviations can be observed as latent, intermittent or manifest, and also will be accompanied with amblyopia (lazy eye), especially in childhood. The diagnosis and treatment of strabismus either accompanied with amblyopia in childhood or acquired form in adult are performed in our clinic. The methods are used in our clinic as follows: monofocal and bifocal glasses with or without prism addition, lazy eye approaches and strabismus surgeries.



Glaucoma

OPHTHALMOLOGY

Glaucoma is known as "Intraocular Pressure" that damage to the optic nerve as a result of increased pressure in the eye. Glaucoma is an insidious disease as it does not reveal itself until an advanced stage and may cause serious irreversible damage to optic nerve at this stage. Periodic eye examinations, especially more frequent, are required for the patients with high intraocular pressure, with a family history of glaucoma, and individuals over the age of 40 since the risk of developing glaucoma increases. In our clinic, Intraocular pressure (IOP) measurement with pneumotometry and applanation tonometry, corneal thickness (Pachymetry) measurement, Computerized visual field analysis (Perimetry- Humphrey Visual Field Analyzer-Zeiss), Optic nerve head and retinal nerve fiber analysis (Spectral-Domain Optical Coherence Tomograph, Heidelberg Engineering) are performed for the diagnosis and following-up of glaucoma. Treatment in glaucoma aims to protect the patient's vision throughout life. The medical treatment is an initial choice, but the laser and surgical is preferred when the damages are not controlled with the medical treatment.

Eyelid and Nasolacrimal Disorders

Droopy upper eyelids and lower eyelid bags develop with aging. Additionally, ptosis, also known as droopy eyelids, can be seen either congenital in childhood or age-related in older adults. Eyelid deformities; inward turning of eyelid (Entropion) and outward turning of eyelid (Ectropion) and its related eyelashes misdirection (Trichiasis) can be developed. Surgery is the best option for all of these eyelid disorders. Excision of chalazion on the eyelid or benign mass on the eyelid and periorbital tissue are other surgical procedures done in our clinic.

In addition to cyclocryopexy, evisceration surgery, in which all intraocular contents are removed while preserving the remaining outside part of eyeball and surrounding orbital adnexa, is performed in all patients with a painful blind eye. Botox injections are used to treat involuntary contraction of the eyelids as known blepharospasm. The diagnosis and treatment of nasolacrimal duct stenosis in children and the surgical approach in adults (dacryocystorhinostomy) are performed in our ophthalmology clinic.