



**Retinal disorders:** Conditions affecting the retina, such as age-related macular degeneration, diabetic retinopathy, and retinal detachment.

**Dry eye syndrome:** A condition characterized by insufficient tear production or excessive tear evaporation, leading to eye irritation and discomfort.

**Conjunctivitis:** Inflammation of the conjunctiva, the thin, clear membrane covering the white part of the eye and the inner surface of the eyelids.

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### Diagnosis and treatment

Ophthalmologists use various diagnostic tools and techniques to identify eye conditions and determine the most appropriate treatment plan.

**Visual acuity tests:** Measure the patient's ability to see objects at a distance, typically using a Snellen chart.

**Slit-lamp examination:** A detailed examination of the eye's structures, including the cornea, iris, lens, and retina, using a specialized microscope.

**Tonometry:** Measures the intraocular pressure (IOP), a key indicator of glaucoma risk.

**Ophthalmoscopy:** Allows the ophthalmologist to examine the retina and optic nerve directly.

**Optical coherence tomography (OCT):** A non-invasive imaging technique that provides cross-sectional views of the retina, helping to detect and monitor retinal diseases.

**Surgical interventions:** Ophthalmologists perform various surgical procedures to treat eye conditions, such as cataract surgery, glaucoma surgery, and retinal detachment repair.

**Prescription eyewear:** Ophthalmologists prescribe glasses or contact lenses to correct refractive errors and improve vision.

**Innovations in ophthalmology**

Ophthalmology has witnessed significant advancements in recent years, leading to improved diagnosis and treatment options for various eye conditions.

**Laser-assisted cataract surgery:** A minimally invasive surgical approach that uses laser technology to break up and remove the cataract.

**Intraocular lenses:** Artificial lenses implanted inside the eye to replace the natural lens, providing long-term vision correction.

**Gene therapy:** A promising approach to treating inherited retinal diseases by introducing healthy copies of the defective gene.

**Artificial retinas:** Devices that bypass damaged photoreceptors in the retina and stimulate the optic nerve directly, offering potential vision restoration for blind patients.

