



GLOSSARY

Anophthalmia: absence of eye(s)

Anopia: congenital absence of eye(s)

Anterior chamber: front-most portion of the eye containing all structures bathed in aqueous humor: cornea, iris and limbus, lens, ciliary bodies

Anterior: toward the front

Aqueous humor: watery fluid secreted from the ciliary bodies and ciliary processes that acts like the blood for the anterior chamber structures and cornea. Exits the eye through the limbus to enter the venous bloodstream.

Augmentation: adding-to, usu in volume

Bilateral: both sides

Biopsy: any removal of tissue for diagnostic evaluation

Blepharoptosis : drooping of the upper lid due to deficient development or paralysis of the levator palpebrae muscle.

Blowout fracture: an explosive event producing an out-fracture of thin orbital bone in any direction, can entrap EOMs and affect motility

Bulbar: associated with the eyeball

Button: any disc-like structure, esp the iris of a prosthesis

Canthal tendon: any tendon of the pretarsal orbicularis oculi muscle inserting into bone

Canthus: either corner of the palpebral fissure; medial c.: nasal corner; lateral c.: temporal corner of the eyelids

Caruncle: a specialized extension of the conjunctival mucosa at the nasal canthus; adjacent fold of mucosa is the plica semilunaris

Cast: hardening a positive copy in a mold

Central retinal artery: the artery entering the eye with the optic nerve to supply the anterior layers of the retina

Choroid: layer of blood vessels feeding the posterior retina.

Collarette: ring in the colored iris usually about halfway from the pupil, representing the widest dilation of the sphincter

Coloboma: a cleft, usu in the iris or retina

Conformer: a smooth spacing element inserted at surgery to support the eyelids and retain socket dimensions while healing

Congenital: anything present at or from birth

Conjunctiva: mucous membrane that protects the eye (bulbar c.) and lids (palpebral c.); in an anophthalmic socket, this membrane lines the socket and covers the implant.

Conjunctiva: c. sac, c. fornices, c. fornix, c. glands, c. space, c.

Cornea: clear outer part of the anterior eye, main focusing lens

Cranial nerve: any of the ten nerves most central to the brain; in the orbit, these are II (optic), III(oculomotor): supplies the medial, superior, inferior, and inferior oblique muscles; IV(abducens): supplies superior oblique; V₁ (orbital trigeminal): frontal and inferior orbital sensory nerves ; VI(lacrimal): supplies the lateral rectus muscle; remembered as LR₆SO₄, all the rest III

-cretion: anything leaving a gland; secretion, excretion, concretion

Cryo-: freezing element; c-therapy: freezing treatment for tumor(s); c-probe: freezing wand used to handle water-containing structures to be removed.

CT (or CAT) scan: uses x-ray to show the body in sections. Coronal CTs containing the eyes and brain are viewed nose-up, from below

Cul-de-sac: any tissue pocket with only one exit

Delamination: separation of layers in the prosthesis, usu at the edges or limbus

Disc Diameter: horizontal measure of the optic nerve head (\pm 1-1.5 mm), used to measure distances in the fundus

Ectropion: outward turning of the eyelashes

Edema: swelling, retention of fluid from the lymphatic system

Endothelium: any tissue lining the inside of a cavity in the body

Enophthalmos: inward malposition of the globe or orbital tissues due to a lack of volume, see superior sulcus

Entropion: inward turning of the eyelashes

Eucleation: surgical removal of the eye.

Episclera: a thin layer of loose connective tissue nearest the sclera

Epithelium: tissue covering the outside of the body; epithelialized: healing resulting in a keratinized covering of an otherwise endothelial area

Equator: the portion of the eye most distant from either pole

Evisceration: surgical removal of the eye contents only, leaving the sclera and muscle insertions intact

Exeneration: surgical removal of all tissue in the orbit

Exophthalmos: forward malposition of orbital elements, bulging eyes

Extraocular muscles (EOMs): any muscle moving the eye

Extrusion: portion of an implant exposed through a covering layer

Exudate: any substance excreted in reaction to stimulus or irritation

Eyelid retractors: fascial extensions from the inferior rectus containing the lower lid Müller's muscle

Eyelid: skin-covered structure that protects the front of the eye.

Fascia: any layer-like structure, usually tough and encircling another

Fit: the ability of the prosthesis to closely conform to the exact socket, usu by casting with the aid of an impression

Fornix: the outermost extension of a pocket or socket, esp the farthest reaches of the conjunctival sac

Fovea: center of the macula, one degree of the sharpest vision

Fundus: the posterior of the eye as seen through an ophthalmoscope; f. drawing: map of the eye drawn by the ophthalmologist

Giant papillary conjunctivitis (GPC): cobblestone-like conjunctival inflammation due to irritation of the posterior eyelid surface

Glands: tissue that conduct (or excrete or secrete) specific substances or cells to aid another tissue; g. specific to the eye, usu contribute to the tearfilm by function or in exiting the eye: g.'s of Wolfring: small, tubuloalveolar glands in the subconjunctival tissue above the upper tarsal plate, ducts opening on the conjunctival surface. ; Waldeyer's g.'s: acinotubular glands in the inner skin of the attached edge of the eyelid; g. of Moll: ciliary glands of conjunctiva; modified sweat glands that have become arrested in their development, situated next to the bulbs of the eyelashes; g. of Krause: accessory lacrimal glands situated deep in the subconjunctival connective tissue, mainly in the upper fornix; Lymphatic g.: secretes lymph, a watery, slightly yellowish fluid into the closed lymphatic system

Goblet cell: mucus-producing endothelial cell

GPC: giant papillary conjunctivitis

Grey line: demarcation of the anterior tarsus in the eyelid margin

Hydroxyapatite: implant material made of calcium from ocean coral

Implant: any sterile device or material inserted into the body

Impression: a cast, here, usually of the conjunctival socket

Inferior oblique

Inferior rectus

Inferior: toward the lower

Integrated implant: allows tissue to grow into the implant examples: Hydroxyapatite, high-density polyethylene

Iris: (colored) diaphragm in the anterior chamber of the eye controlling the amount of light entering the retina

Lacrimal drainage system: canal system draining tears into the nose

Lacrimal glands: glands providing secondary, autonomic tears

Lamina Cribrosa: layer of sclera which allows exit of the optic nerve

Lamina papyrcea

Lateral rectus

Lens: any non-flat optical element; the clear, laminated focusing element inside the eye

Leukocoria: white pupillary reflex, often representing retinoblastoma

Levator palpebrae superioris (muscle): raises the upper eyelid; L. Aponeurosis: sheet-like continuation of levator muscle that inserts into upper eyelid and tarsus

Lid laxity (horizontal): slackness of the canthal tendons, tarsus and eyelid, causing a droopy lid difficult to contain a prosthesis

Ligament: fibrous connection of bone to bone

Limbus: portion of the eye adjacent to the cornea, iris, and sclera

Lockwood's ligament: fascial structure supporting the globe from below

Lymphatic tissue: part of the collection system of the lymph system; conjunctiva is especially rich in this tissue on the back of the tarsi and in the bulbar conj.

Lymphatic, lymph system: a circulation system besides the blood that carries away cellular

waste and fluids outside and between the cells, placing this eventually into the venous blood system

Macula: central, most-sensitive area of retina, contains fovea

Magnet: any iron-containing material exhibiting magnetism

Medial: toward the mid-line of the body; rectus

Meibomian: oily, sebum-producing glands within the tarsus in each eyelid

Metastasis: spread of a cancer to other parts of the body

Microphthalmos: a small, congenitally tiny globe

Migration: movement from intended position

Moll glands: watery component of tears

Motility: movement, especially of the prosthesis

MR (or MRI) scan: uses no radiation other than radio waves inside a magnetic field

Mucus: ; mucous; mucoid; produced by goblet cells and x glands

Müller's muscle: sympathetic (autonomic) muscle that retracts the eyelid tarsus and fornix;
upper M.m.: from the levator aponeurosis to the tarsus and fornix; lower M.m.: within retractors

Müllers muscle: sympathetic muscle attached from the EOMs to the tarsal plates and conjunctival bursa

Muscle cone: the conical portion of the orbit described by the EOMs and the septum between them

Nasolacrimal duct

Non-integrated Implant: remains separate from the body tissues do not grow into the implant;
example materials: glass, metal, acrylic

Non-integrated implant: does not allow tissue to grow into the implant; examples used: glass, rubber, silicone, steel, gold, silver, acrylic, and polymethylmethacrylate

Nuclear scan: an injected isotope is detected as it quickly degrades.

Oblique: angled

Ocular implant: spherical device placed in the orbit at surgery to replace orbit volume after removal of the eye or its contents. Usually made of acrylic PMMA Medical grade, silicone or bio-compatible material.

Ocular: pertaining to the eyeball; intraocular, extraocular

Ophthalmic: pertaining to the eye, particularly medical aspects

Ophthalmoscope: instrument used to view inside the eye; direct o.: a lighted handscope magnifier, used primarily to see the optic nerve and macula; indirect o.: a handheld lens is viewed from a lighted telescopic headset, used primarily to view the retinal fundus in 3D

Optic disc: the portion of the retina where all the nerve fibers collect to exit the eye, producing a blind spot

Optic Nerve: bundle of nerve fibers that carries impulses from the retina to be formed into images in the brain.

Ora Serrata: anterior-most part of the retina that looks like teeth

Orbicularis oculi muscle:

Orbit, orbital: pertaining to the bony containment of the eye socket

Orbital apex: the posterior part toward the brain

Orbital fat: fat contained mostly in the muscle cone

Orbital muscle: sympathetic muscle covering the inferior orbital fissure, also called o.m. of Müller, makes eye bulge out in fight/flight of dogs, etc., often absent or of little effect in humans

Orbital rim: the anterior most portion of the orbit

Orbital septum: membrane-like covering between the eyelids and the orbital rim; also describes a portion of the eyelids

Orifice: any opening

Palpebral: pertaining to the eyelids, usu as opposed to *bulbar*, which pertains to the eyeball

Peg: affixes some prostheses to the implant, transferring movement

Peritomy: circular incision to the sclera at the limbus, usu 360°

Polish: to buff out any scratches to a smooth surface

Polyethylene: one implant material that allows partial tissue ingrowth or integration

Posterior chamber: portion of the eye behind the lens and ciliary body

Posterior: toward the back

Potential space: any space currently collapsed that can be opened

Primary Surgery: surgery done immediately, usu emergent; compared with “secondary surgery” which is either delayed, elective or replacement surgery

Prognosis: overall predicted outcome of treatment

Prosthesis: any replacement for an anatomical body part, here an artificial (or “glass”) eye, usually made from acrylic plastic

Proteinaceous: containing protein, usu derived from the blood

Pulley of Chalcot: fascial connections within tenons capsule of the EOMs that redirect the vector of the muscle pull

Pupil: (black) opening at the center of the iris

Pupillary reflex: a reflection from the back of the eye

Radiation: any treatment for tumors utilizing any radiofrequency (RF) waves in the electromagnetic (EM) spectrum, including x-rays and gamma rays

Radioactive plaque: disc of radioactive material that is sewn to the eye to treat cancer

Rectus, plural recti: “straight”, here one of four straight EOMs

Retina: light-sensitive nerve tissue lining the back of the eyeball.

Retinaculum: any syncisium of tissue holding another structure up vertically. (fr retain)

Retinoblastoma: a cancerous tumor of the retina, usually congenital

Scan: any test that looks into the body and produces an image.

Sclera: white outer coat of the eyeball.

Sebaceous: glands producing oily sebum; most are at the base of hairs or exiting directly onto the skin surface.

Sebum: a mixture of oil, wax, inorganic salts, fats, cholesterol, and proteins that keeps hair flexible, prevents drying, etc.

Seeding: cells breaking off from a main tumor to make new tumors

Silicone: a material once used for implants

Snare: a surgical wire garrotte used to cut the optic nerve

Sphincter: any muscle contracting to close a round orifice; in the iris, a muscle near the pupil that controls the size of the pupil

Spiral of Tillaux: describes the distance of muscles from the limbus

Strabismus: any abnormal alignment of the eyes

Sulcus: a contour depression

Superior oblique

Superior rectus

Superior sulcus deformity: recession of the upper septal eyelid, usually from volume deficiency of the orbit

Sympathetic ophthalmia: an auto immune response in the fellow eye, often due to exposure of blood to the retinal pigment.

Tarsus: cartilage-containing plate-shaped structures that give support to the eyelids, contains the Meibomian glands

Tear Glands: common, though inaccurate term used to include all glands that contribute to the tearfilm; Müllers, Zeiss, Moll, ; lacrimal

Tearfilm: the three-layered fluid wetting the eyeball

Tendon: the tough connection of a muscle to another structure

Tenon's capsule, fascia: ; Anterior tenon's: portion anterior to the EOMs; posterior tenon's: portion posterior to insertion of the EOMs, encircling the globe and EOMs to the orbital apex

Trauma: any injury

Trichiasis: extra, erratic eyelashes

Ultrasound (US) scan: uses sound waves, can be seen in A-scan, B-scan or C-scan, can be assembled into 3D views.

Umbo: spot-like reflection from the fovea

Vitreous humor: clear gel filling the eye behind the lens

Wettability: the ability of a surface to accept water

Whitnall's ligament

Zeiss: glands producing sebum at the base of the eyelashes, also a nominal component of the tearfilm