

VISION: ACCESSORY STRUCTURES AND MUSCLES

2/7/82 RVSD 21 January 2016

S&M p 39, Martini p 562-581, Martini 6th: 569-587, 7th: 554-573, 8th: 566-585, 10th:

Embryonic development

outgrowths fr diencephalon via **optic stalk**, form **optic vesicles**

optic cups, 2x layered

inner layer: nervous tissue of retina

outer layer: pigmented layer of retina

organogenic induction:

lens placode: ectoderm thickens, invaginates, forms lens vesicle

fibrous and vascular coats formed by **mesodermal aggregation** (mesenchymal), **cornea** forms over lens vesicle

ACCESSORY STRUCTURES AND EXTERNAL FEATURES (p 571)

palpebra eyelid. eyelids strengthened by tarsal plate of connective tissue

Meibomian glands enlarged sebaceous glands, lubricates margin, hold in tears.

infected: **cyst on eye**

eyelashes have sebaceous glands too:

infected: **sty**

ciliary glands modified sweat glands,

canthi (angle) medial and lateral:

Corners of fissure of lids

caruncle (flesh, little red mound in medial canthus)

conjunctiva mucous membrane lining of

eye: bulbar conjunctiva

inner eyelid: palpebral conjunctiva

fornix (arch) where they join

LACRIMAL APPARATUS: (571)

lacrimal gland superior lateral edge of orbit, ducts deliver

tears salt, mucin, **lysozyme**

lacrimal drainage

papilla two medial projections

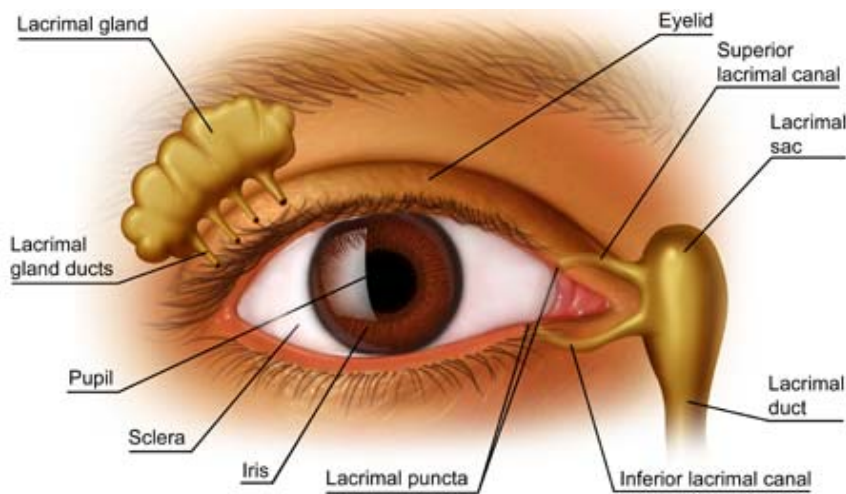
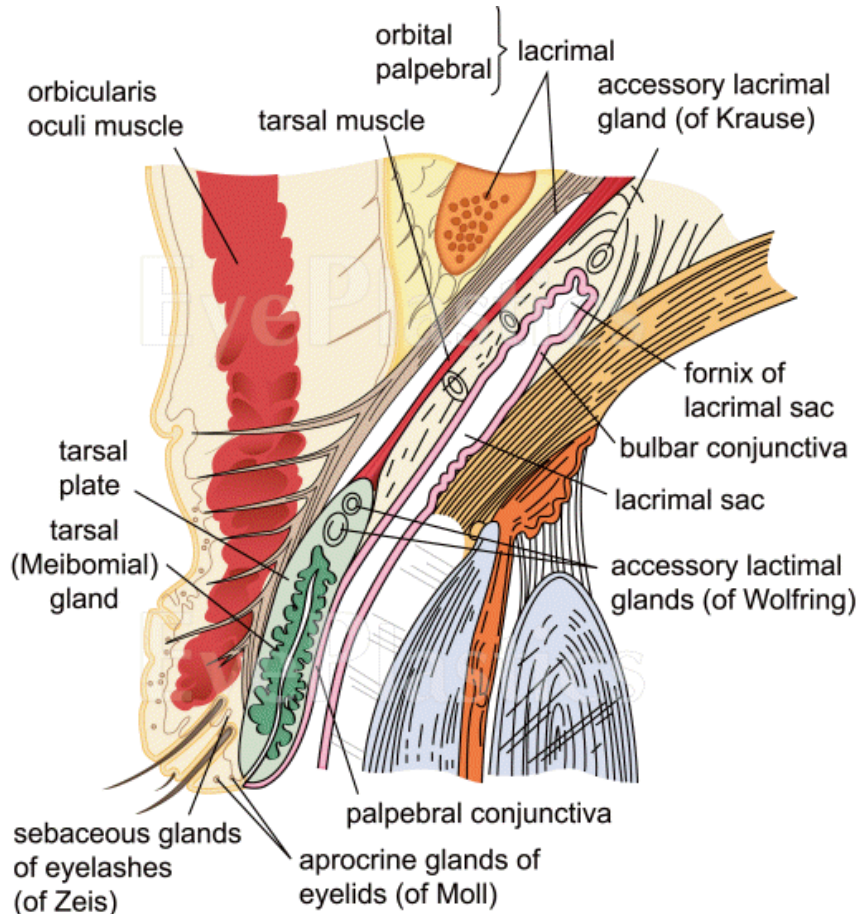
puncti, open into

canaliculus drain to

lacrimal sac receiving chamber

nasolacrimal duct drains onto

inferior nasal conchae



MUSCLES: (p 347)

SIX EXTRINSIC

4 rectus: superior, lateral, inferior, medial

2 oblique: **inferior oblique** lateral & up
superior oblique lateral & down

Focusing of image on retina:

mostly by cornea, adjustments by lens.

INTRINSIC MUSCLES:

Accommodation: pupil: (p 558), lens focus: (p 562)

pupil also constricts during accommodation

ciliary muscles contract, narrows ring of **ciliary body** (like a sphincter).

less tension, lens bulges to more round.

