

Chapter 12

Eye

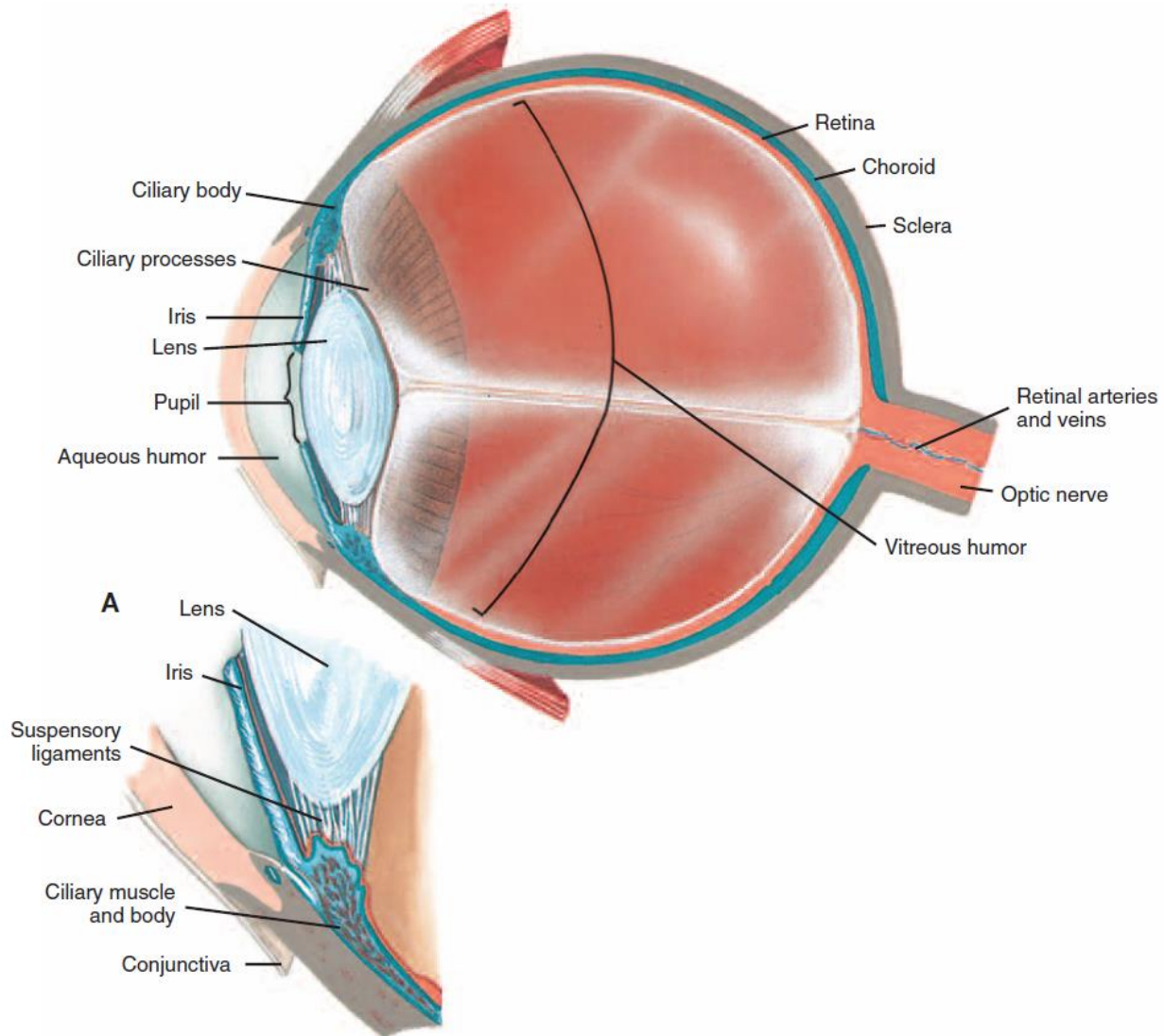


From Zitelli BJ, David HW. *Atlas of pediatric physical diagnosis*, ed 4, St. Louis, 2002, Mosby.

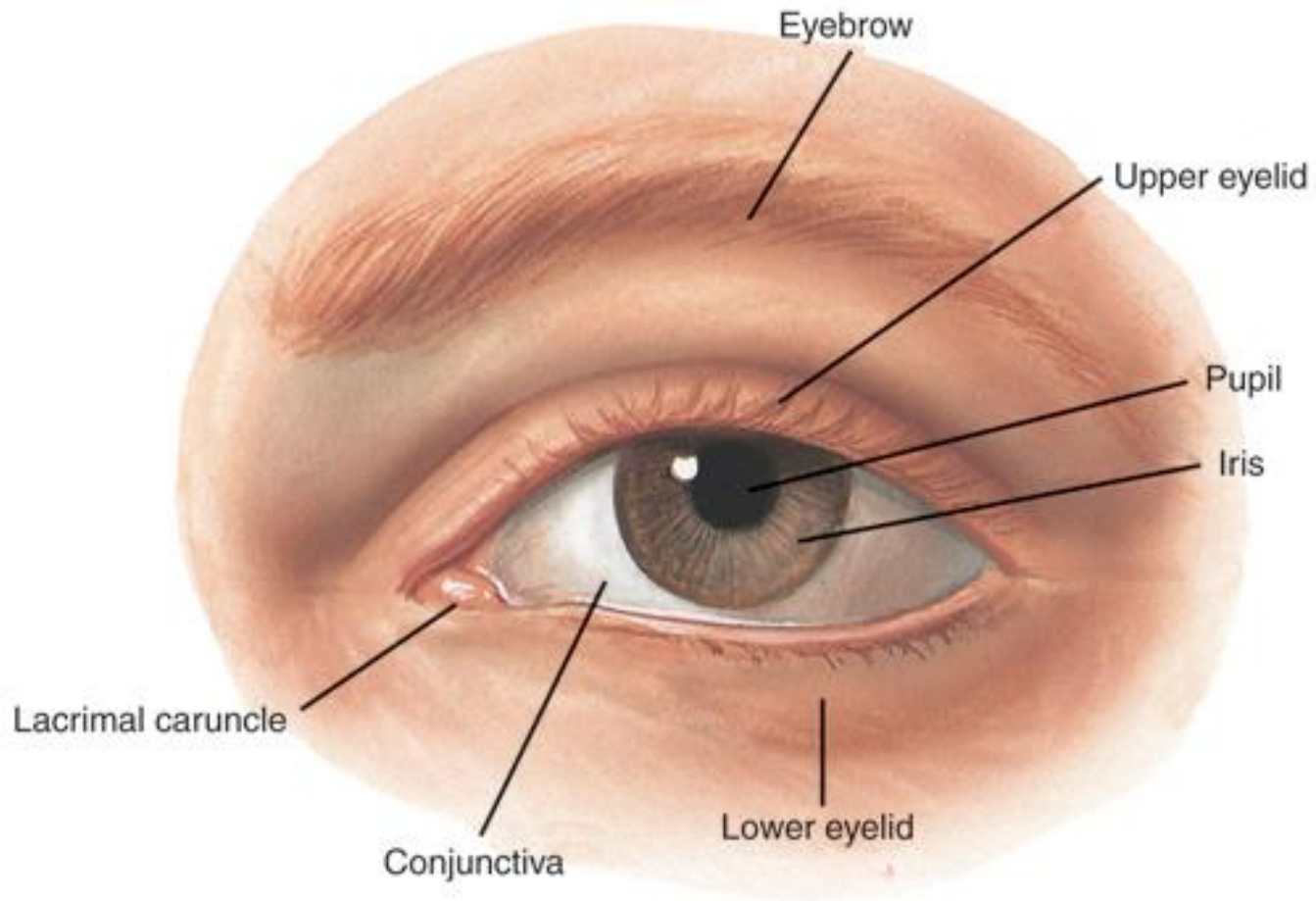
Chapter 12

Objective 1: Pronounce organs and anatomic structures of the eye.

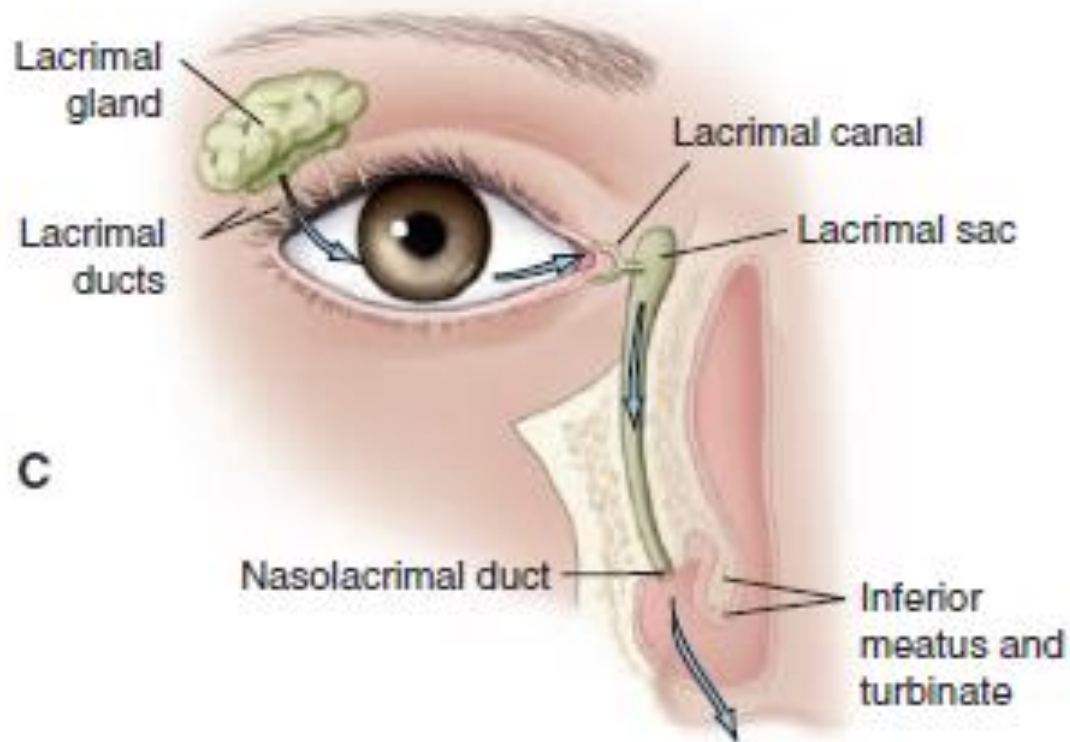
Anatomy of the Eye



Visible Surface of the Eye



Lacrimal Apparatus of the Eye



Select the pronunciation of the anatomic structure defined.

(Ā-kwē-us) (HŪ-mor) (OP-tik) (nurv) (lenz)
(KŌR-nē-a) (SKLER-ah)

1. watery liquid found in the anterior cavity of the eye
2. carries visual impulses from the retina to the brain
3. function is to focus and bend light
4. allows the light rays to enter the eye
5. “white of the eye”

ANSWERS

1. (Ā-kwē-us) (HŪ-mor)
2. (OP-tik) (nurv)
3. (lenz)
4. (KŌR-nē-a)
5. (SKLER-ah)

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Objective 2: Define and spell word parts related to the eye.

Review of Prefixes and Suffixes

Prefixes

1. bi-, bin-

Prefixes

1. two

Suffixes

2. -opia

3. -phobia

4. -plegia

Suffixes

2. vision (condition)

3. abnormal fear of or
aversion to specific things

4. paralysis

Spelling “ophthalm”

- Look closely at the spelling of “ophthalm.”
- Medical terms containing “ophthalm” are often misspelled by omitting the first “h.” “ph” gives the “f” sound followed by the “th” sound of “thal.”
- Think pronunciation when spelling terms that contain “ophthalm” as in “of[ph]-thal-MOL-o-jē”

Review Question

Which is correct?

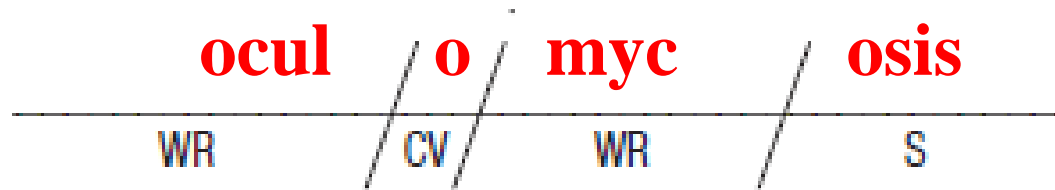
- a) ophthalm/o
- b) ophthalm/o
- c) ophtham/o

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Objective 3: Define, pronounce, and spell disease and disorder terms related to the eye.

Disease and Disorder Terms Built from Word Parts (1 of 2)

**abnormal condition of the eye caused by
a fungus**



Disease and Disorder Terms Built from Word Parts (2 of 2)

What might you experience when leaving the dark movie theater and entering the bright light of the sun?

photophobia
abnormal fear of (sensitivity to) light

Review Question (1 of 3)



blephar / o / ptosis

eyelid / cv / drooping

Review Question (2 of 3)



dacry	o	cyst	itis
tear	cv	sac	inflammation

Review Question (3 of 3)

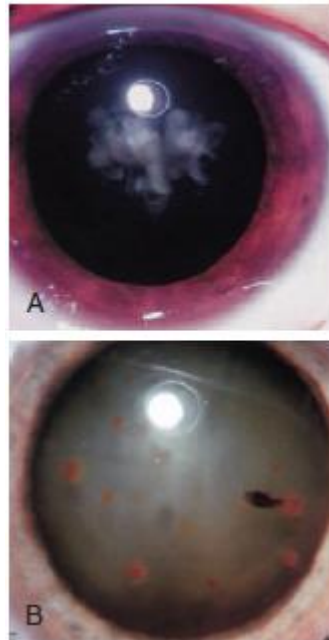
The correct spelling is

- a) blefaritis
- b) blepharitis



Disease and Disorder Terms Not Built from Word Parts (1 of 2)

What is the medical term for clouding of the lens of the eye?



cataract

Disease and Disorder Terms Not Built from Word Parts (2 of 2)

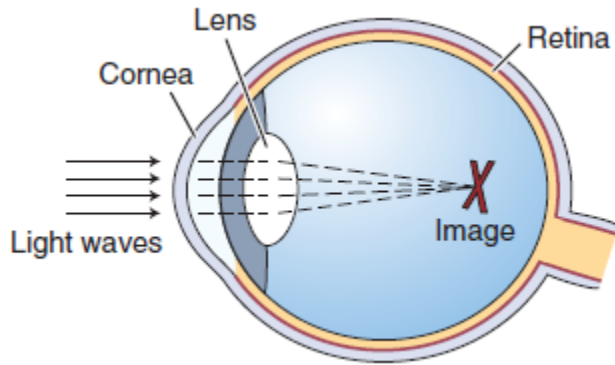
infection of an oil gland of the eyelid



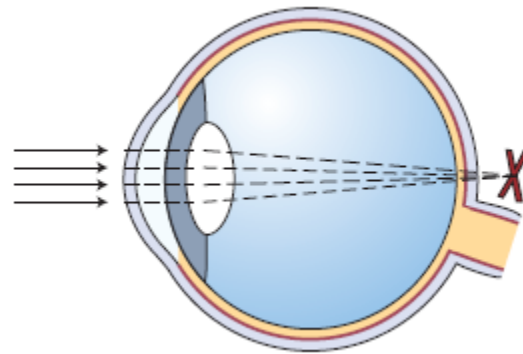
sty

Refraction Errors

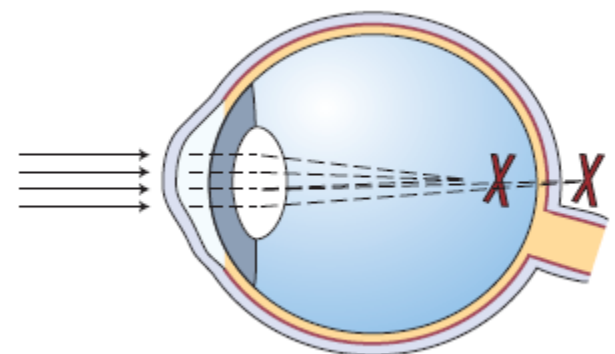
Can you name the refraction errors by their definitions?



nearsightedness
MYOPIA

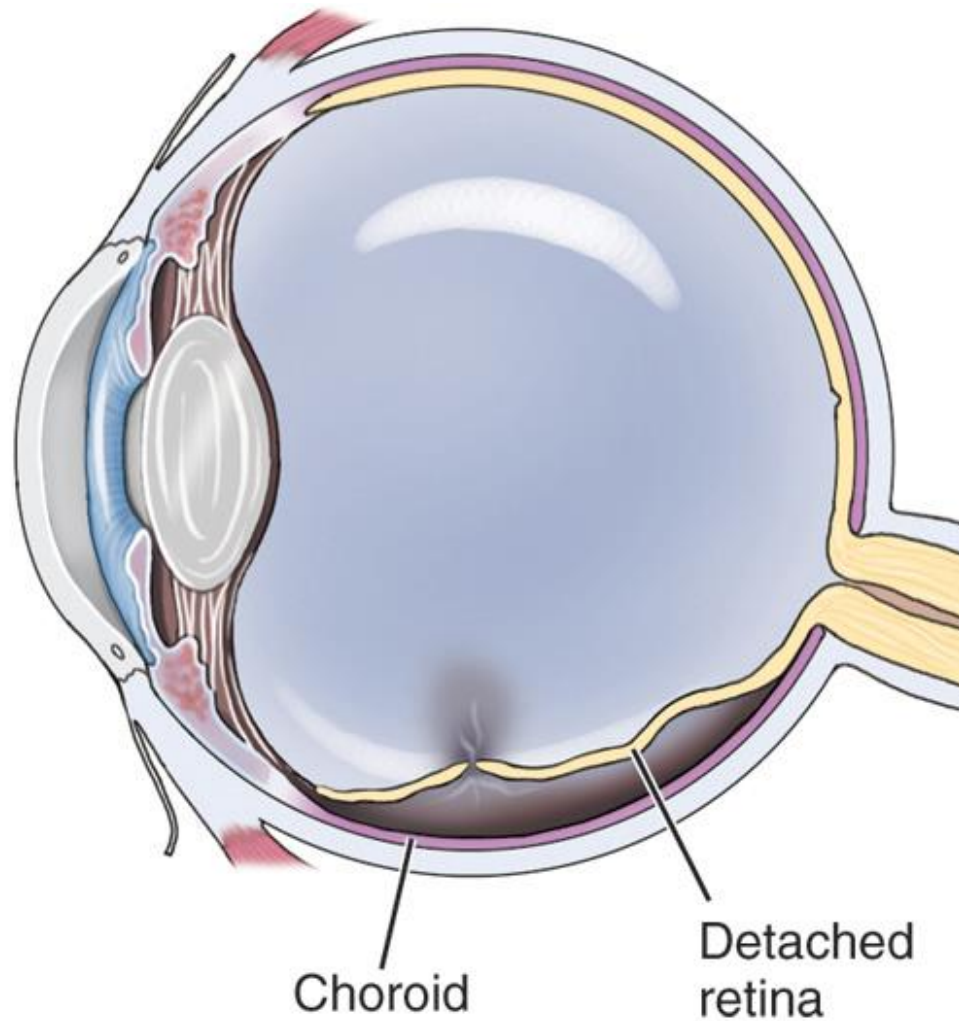


farsightedness
HYPEROPIA



blurred vision
caused by
irregular
curvature of the
cornea or lens
ASTIGMATISM

Retinal Detachment



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Objective 4: Define, pronounce, and spell surgical terms related to the eye.

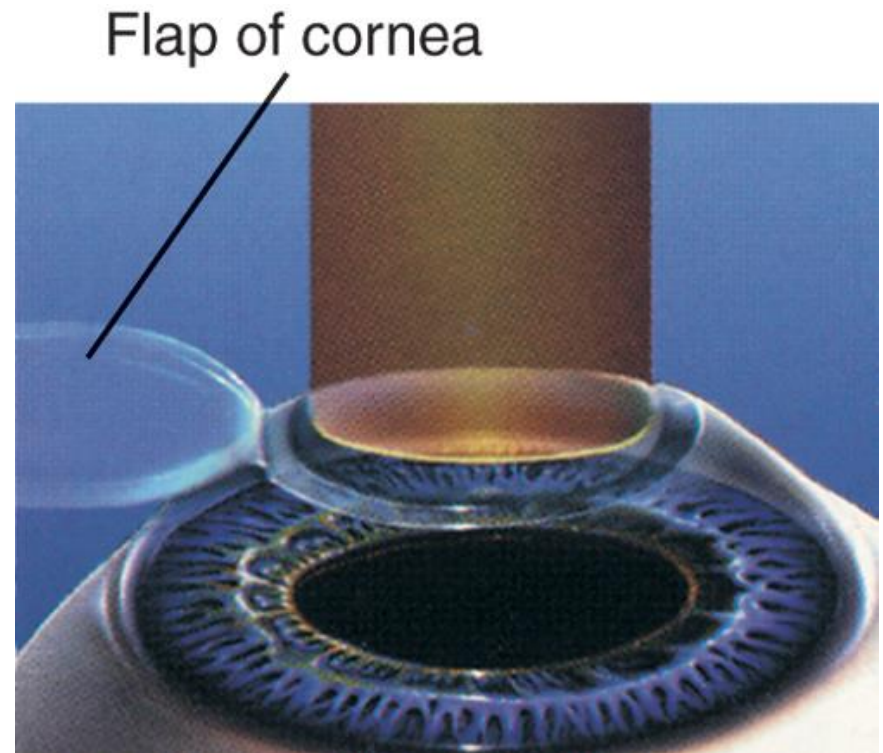
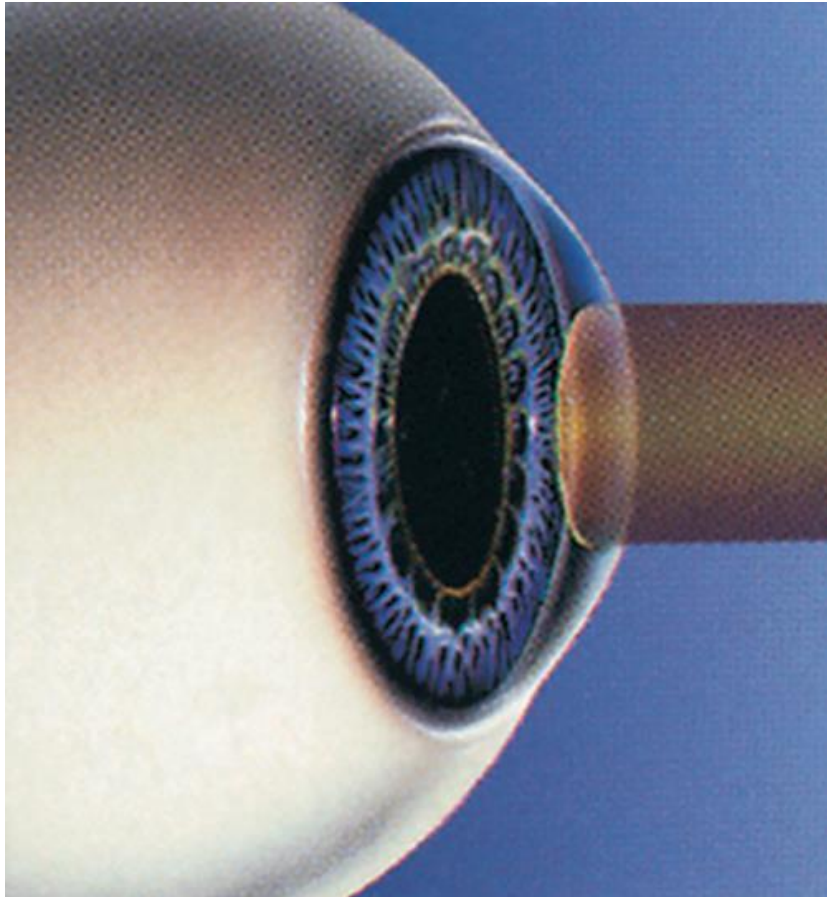
Surgical Terms Built from Word Parts

Following this surgical procedure performed to replace the cornea, the eye will have this appearance.



KERATOPLASTY

PRK and LASIK



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Objective 5: Define, pronounce, and spell diagnostic terms related to the eye.

Diagnostic Terms Built from Word Parts

- **Diagnostic imaging**
 - fluorescein angiography
- **Ophthalmic evaluation**
 - keratometer
 - ophthalmoscope
 - ophthalmoscopy
 - optometry
 - pupillometer
 - pupilloscope
 - retinoscopy
 - tonometer
 - tonometry

Review Question

Which of the following would be performed during an eye examination in the ophthalmologist's office?

- a) enucleation
- b) tonometer
- c) retinoscopy

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Objective 6: Define, pronounce, and spell complementary terms related to the eye.

Pessimist ... Optimist ... Optometrist

Pessimist: The glass is half empty.

Optimist: The glass is half full.

Optometrist: These glasses don't belong to either one of you!

Sign outside Ophthalmologist office ...

“If you don’t see what you’re looking for, you’ve come to the right place.”

Ophthalmologist:

physician who studies and treats diseases of the eye

Can you SEE the difference?

- Ophthalmologist** - physician (surgeon) who studies and treats diseases of the eye
- Optometrist** - health professional who diagnoses, treats, and manages diseases and disorders of the eyes and visual processing system; doctor of optometry (OD)
- Optician** - specialist who fills prescriptions for lenses (cannot prescribe lenses)

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Objective 7: Interpret the meaning of abbreviations related to the eye.

Abbreviations Review

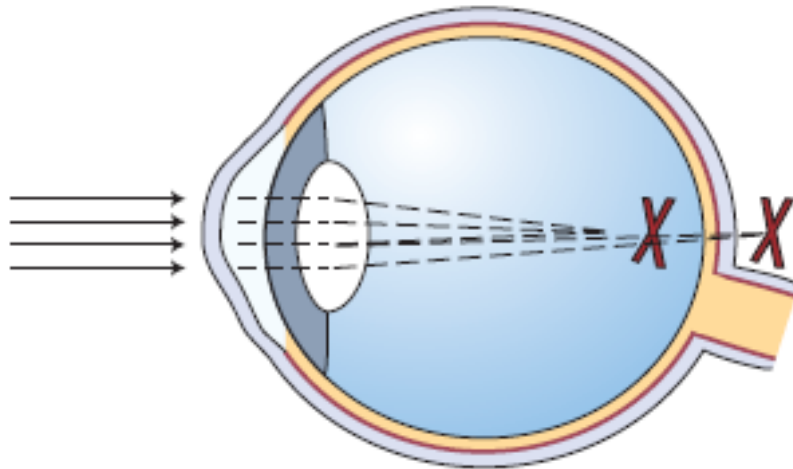
What abbreviation is used to denote the progressive deterioration of the macula associated with for example, central vision loss as depicted below?



ARMD
age-related macular
degeneration

Abbreviations Review

Name the abbreviation for blurred vision caused by irregular curvature of the cornea or lens. Light refracts improperly, resulting in diffused, rather than points of light focusing on the retina.




Ast

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Objective 8: Apply medical language in clinical contexts.

Pronounce Medical Terms in Use



An elderly gentleman visited his **ophthalmologist** (*of-thal-MOL-o-jist*) because of decreased vision. A **tonometry** (*tō-NOM-e-trē*) examination showed borderline readings. **Visual acuity** (*VIZH-ū-al*) (*a-KŪ-i-tē*) measurement indicated a mild degree of **myopia** (*mī-Ō-pē-a*) and **presbyopia** (*pres-bē-Ō-pē-a*). A diagnosis of **glaucoma** (*glaw-KŌ-ma*) is suspected in this case and timolol eye drops were prescribed, one drop daily.

A **cataract** (*KAT-a-rakt*) of the right eye was found. Lens implant surgery, which places an **intraocular lens** (*in-tra-OK-ū-lar*) (*lenz*), will be performed when the cataract matures sufficiently. Approximately 5 years ago the patient had a **detached retina** (*RET-in-a*) of the left eye. A **scleral buckling** (*SKLER-al*) (*BUK-ling*) procedure was performed and was successful in halting the progression of retinal detachment.

Comprehend Medical Terms in Use

(1 of 2)

Test your comprehension of the terms in the previous medical document by circling the correct answer.

1. T F The ophthalmologist used an instrument to measure pressure within the patient's eyes to assist in the diagnosis of increased intraocular pressure.
2. Visual acuity measurement indicated:
 - a. farsightedness and impaired vision as a result of aging
 - b. nearsightedness and impaired vision as a result of aging
 - c. poor night vision and farsightedness
 - d. poor night vision and impaired vision because of aging

Comprehend Medical Terms in Use

(2 of 2)

3. Timolol eye drops were prescribed to address symptoms most likely caused by:
 - a. inflammation of the cornea
 - b. optic nerve damage caused by increased IOP
 - c. separation of the retina from the choroid
 - d. clouding of the lens of the eye
4. T F A scleral buckling procedure was used to correct clouding of the lens in the right eye.