

# Glaucoma & other visual impairments

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January, 2018

# Anatomy of the eye

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- The eye sits in a bony socket in the skull, the socket protects the eye and is surrounded by muscles that control eye movement
- The thickest and outermost layer is called the **sclera**, which is the white part of the eye.
- The front part of the sclera is called the **cornea** and it is transparent. It appears colored because it is positioned over the iris.

# Anatomy of the eye cont.

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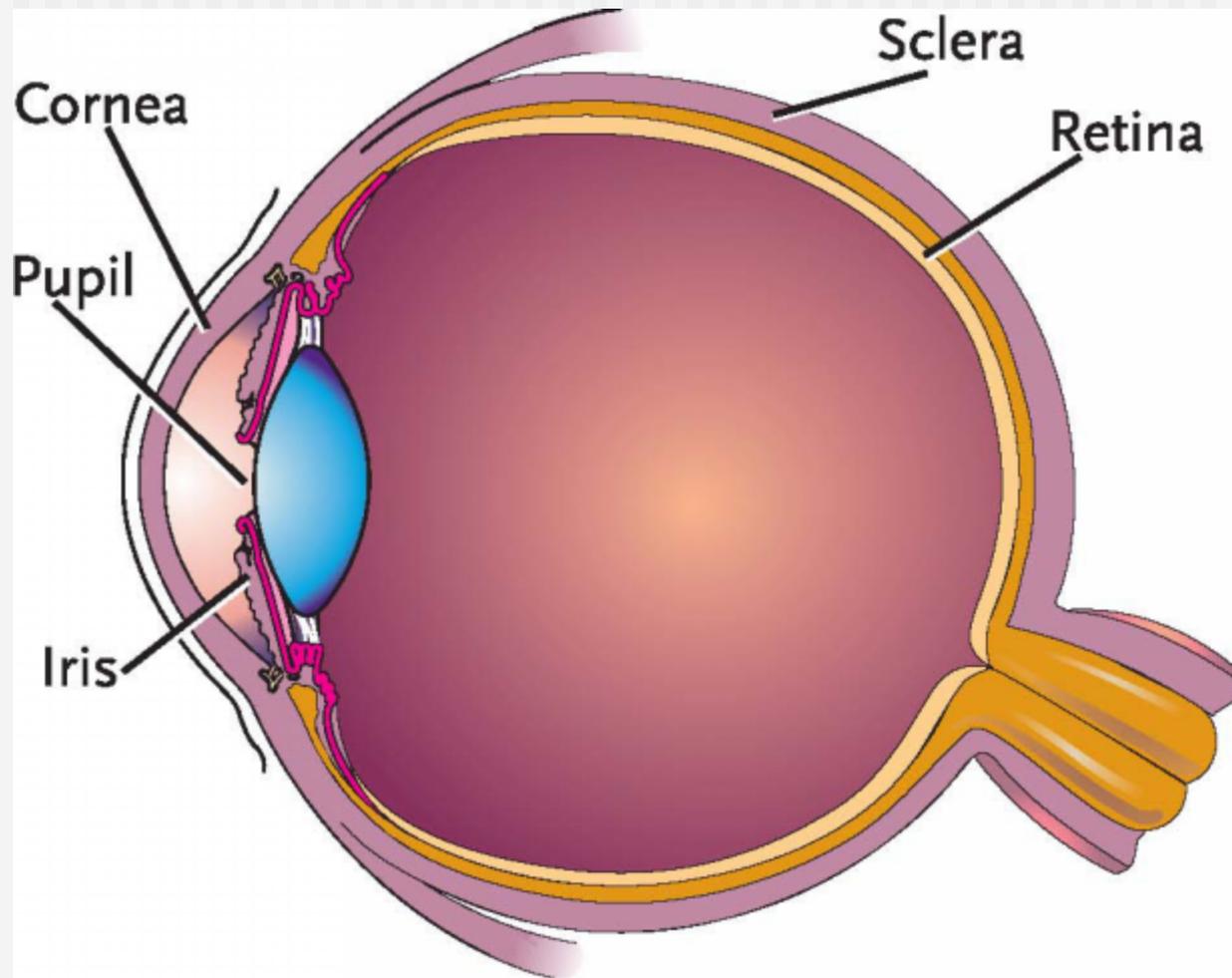
- The **iris** is the part of the eye that is genetically colored and gives the eyes their unique appearance.
- The **pupil** is the circular opening in the center of the iris, which dilates (opens) and constricts (closes) to adjust the amount of light coming into the eye.

# Anatomy of the eye cont.

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- Inside the back of the eye is the **retina**. It contains cells that respond to light and send messages to the brain, where the picture is interpreted so a person can see.

# Parts of the eye



# Vision changes

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- **nearsightedness**

- the ability to see objects that are near more clearly than distant objects; also called myopia.

- **farsightedness**

- the ability to see distant objects more clearly than objects that are near; also called hyperopia.

- **cataract**

- a condition in which the lens of the eye becomes cloudy, causing vision loss.

- **glaucoma**

- a condition in which the pressure in the eye increases, damaging the optic nerve and causing blindness.

# Cataracts

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- Develops when the lens of the eye becomes cloudy
- Causes: diabetes, eye injury, may be inherited or result from normal aging
- Symptoms: blurred vision, glare when driving at night, yellowing of vision
- Treatment: surgery

# Glaucoma

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- Leading cause of blindness in the U.S.
- Cause: intraocular pressure increases, damaging the optic nerve
- The majority of people have open-angle, or primary, glaucoma.
- Symptoms of open-angle glaucoma: not always apparent, but over time, there is a decrease in vision, especially in the peripheral vision

# Glaucoma cont.

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- Another form of glaucoma is angle-closure, which can be chronic or acute.
- Symptoms of angle-closure glaucoma: pain, nausea, vomiting, seeing a halo around lights, reddening of the eye, blurred vision
- Treatment: eye drops and other medications, surgery

# Age-related macular degeneration (AMD)

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- Condition in which part of the retina degenerates
- Two forms are wet and dry AMD; the dry form is more common.
- Risk factors: aging, smoking, sun exposure, heredity, gender, and race
- Treatment: laser surgery, injections, zinc, antioxidants

# Care guidelines

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- Encourage use of eyeglasses or contact lenses if worn.
- Keep eyeglasses clean and safe.
- Change cases for contact lenses regularly.
- Always identify yourself as you enter the room.
- Keep doors completely open or closed.

# Care guidelines cont.

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- Leave furniture in place.
- Use the face of an imaginary clock to explain the position of objects in a room.
- Make sure there is enough lighting in every room.
- Walk a little ahead of the resident as she holds your arm.
- Walk at the resident's pace.

# Care guidelines cont.

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- Assist residents to complete menus. Set up meal trays as needed.
- Use large-print books, audio books, and digital books.
- Read to residents if they desire it.
- Assist with vision screening.

# Artificial eyes

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- Is a type of prosthetic and does not provide vision
- Necessary for people who have lost an eye to cancer, other disease, or injury
- Most are made from plastic.
- Held in place by suction
- Carefully follow care instructions.
- Do not use alcohol or abrasives to clean the eye.
- Act professionally during care.
- Keep eye covered completely in solution when stored.