

Different Ways of Seeing kit

- There are three acrylic stands in the kit, each with a schematic image of an eyeball: one each for glaucoma, cataract, and macular degeneration. Attached to the back of each stand (with Velcro) is a strip of laminated paper and the text starts with a question “Did You Know?” These strips should be adjusted so that they display toward the guest at the table (but removed and stored for transport on the back of the stand when packing up).
- Materials for each of the eye conditions are color-coded with stick-on colored dots: **red for glaucoma**, **yellow for cataract**, and **blue for macular degeneration**.
- Low vision simulators: Two for each disease (more for macular degeneration). They are color-coded.
- An empty cigarette pack from Canada shows that the Canadian government informs consumers that smoking can cause blindness. The package features a picture of an intravitreal injection for “wet’ or exudative disease. The pack should be attached (Velcro) to the side of the AMD acrylic stand and it can be removed so that (adult) guests can have a closer look.
- A model eye on a plastic stand can be used for more detailed explanations of ocular anatomy. Please note that the crystalline lens of this model is not attached. While perfect for demonstrating cataract removal, please be careful not to lose it.

Interactive activities while wearing a simulator

- Glaucoma – connect the dots. It is thought that the constricted visual field provided by the simulator will make it more challenging to follow the number sequence in this little puzzle. Also, the guest can check their peripheral vision by moving their fingers into their line of vision.
- Cataract – writing. The guest can be encouraged, while wearing the simulator, to write their name or any other words that seem

appropriate to the time and place. They can compare using bold line, pens, and regular pens or pencils.

- Macular degeneration – coloring. There are drawings (usually Bucky Badger) and crayons to use to color it. They may find out it is more difficult to stay within the lines of the drawing due to the central blind spot of the simulator. Ask guest to align blind spot with your face and notice if they can see your features. Can they still see much of what's in the room?

Other Kit Items

- There is an acrylic brochure stand that is filled with materials. Please feel free to distribute these as appropriate. Of particular note are the braille bookmarks (which children usually find interesting, especially when you mention that braille was invented by 14-year-old Louis Braille in the early 19th century.) Also, there is a full sheet handout about what can be done to reduce the risk of eye disease that is popular with adults (“Seven Sight-Saving Steps”).
- There are several items representing different activities of daily living: telling time, writing, and reading. Guests are encouraged to try these while wearing the simulators and to compare the relative ease or difficulty of each. They can assess the difference between regular print and large print, or print and audio (talking clock).
- There are two handheld magnifying glasses that guests can use to determine if these are helpful for performing a task.
- If your exhibit space permits, there are tennis balls that guests can use while wearing the simulators. This might include tossing the balls to each other at a short distance or having them rolled toward them on a table. There is also a distance acuity eye chart which, if used, should be viewed from a distance of 10 feet. The numbers on the right-hand side of the chart will show the 20-foot equivalent for Snellen visual acuity
- Alcohol wipes can be used to clean the simulators.

Information about eye diseases

Age-related macular degeneration is the leading cause of vision impairment in the developed, Western world. It is primarily a disease associated with aging. Approximately 10% of cases are of the wet or exudative form and may be treated, but not cured, via injections into the eye. The remaining ~90% of the disease is known as geographic, atrophy and currently there is no treatment. Although there are genetic factors involved, it is not directly inherited. General risk reduction activities include a balanced diet, exercise, and not smoking cigarettes (see “Seven Steps to Saving Sight” handout).

Glaucoma is sometimes called “the sneak thief of sight “. This is because it is usually painless and the patient is not aware of the disease. If undiagnosed, the peripheral visual field is destroyed over many years which can lead to blindness. The tests for glaucoma can only be provided by an eye doctor and include checking the pressure in the eye, checking the patient’s visual fields or peripheral vision, and examining the health of the optic nerve. This can be done via a dilated eye exam. The eye is the only organ of the body that we can look into without cutting it open. Once diagnosed, glaucoma is usually successfully treated with eye drops. Although it is a chronic condition, most people do not become totally blind because of it. The prevalence of glaucoma is higher in the African American and Hispanic/Latinx communities.

Cataracts is the clouding of the crystalline lens that is responsible for focusing the image inside the eye. As we age, this lens becomes cloudier. At a certain point, the cloudiness of the lens is called a cataract. In the parts of the world where people have access to appropriate medical care, cataracts are treated with surgery. The cloudy lens of the eye is removed and replaced with a small plastic disc called the intraocular lens. This will last for the rest of the patient’s life. In the US, the surgery is about 98% successful. Unfortunately, cataracts are a major cause of blindness in the world due to the lack of available treatment.

Note that there is a handout (Seven Sight-Saving Steps) in the brochure rack, listing behaviors to reduce the risk of eye disease.