Prevention of Vision Loss

Speakers

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When Data Tells the Story

Falls among Ohioans 65 years and older*:
Without a Visual Impairment 28%
With a Visual Impairment 52%

Ohioans with*:
Age-Related Macular Degeneration (age 50+) 88,000+
Cataract (age 40+) 991,000+
Diabetic Retinopathy (age 40+) 284,000+
Glaucoma (age 40+) 106,000+

Falls Among Persons 65 or Older With or Without Vision Impairment – United States 2014, Centers for Disease Control, MMWR, May 6, 2016
Learning Goals for Today’s Presentation

• Eye Diseases that Impact the Aging Population
• Overview of the Public Health Efforts
• Utilization of an Eye Anatomy and Vision Simulation app
• Low Vision – Where to Find Assistance
“I Can See it in Your Eyes”

November 10, 2016
Ohio Association for Area Agencies on Aging

J.P. Maszczak, OD
Chief, Advanced Ocular Care Service
The Ohio State University College of Optometry
How does systemic health affect the visual system?
What changes occur with the eyes as we age?
Anatomy 101
Age 0-10

- First eye exam around age 1 with an optometrist or ophthalmologist

- Proper development of the eyes can be significantly altered by:
  - Asymmetric prescription
  - High amount of prescription
  - A turned eye (strabismus)
  - Media opacity
Age 11-40

- The status of the prescription is typically well established in early teens
- Common myths...
  - Wearing Rx glasses makes your eyes worse in the long run
  - Not wearing your Rx glasses makes your eyes worse in the long run
Age 41-55
- Presbyopia!
  - The natural loss of the eyes’ ability to focus at near
  - Reading glasses, bifocals, monovision
- Presbyopia is a gradual process and a completely separate entity from nearsightedness, farsightedness, and astigmatism
Age 56+
- Glaucoma
- Macular degeneration
- Cataracts
- A host of other ocular conditions linked to systemic health
  - Diabetes
  - Hypertension
  - Inflammatory disorders
  - Cancer, tumors, stroke
Glaucoma

- Worldwide, it is the second leading cause of blindness
- Estimated 3 million people in the US with glaucoma, although only ½ are aware of it
- Everyone is at risk for glaucoma, from infants to elderly
"At least they don't have the machine that blows air in your eye."
*MOST TYPES OF GLAUCOMA DO NOT RESULT IN ANY SYMPTOMS UNTIL IT IS ADVANCED*
Macular Degeneration (AMD)

- Most commonly occurs after the age of 60
- Major risk factors include:
  - Smoking
  - Race (more common in Caucasians)
  - (+) family history 2

Types... dry and wet
Dry AMD
Macular Degeneration Simulation

Photos: National Eye Institute, National Institutes of Health

Normal Vision

Age-related Macular Degeneration
Cataract

- Everyone will eventually get cataracts
- Worldwide, the leading cause of blindness
- Risk factors that may contribute to more progressed cataracts:
  - Smoking
  - UV exposure
  - diabetes
Cataract Surgery

- In terms of quantity, it is the most common surgery performed in the US
- Generally considered a low-risk procedure
- A new artificial lens is implanted in place of the natural lens
Diabetes

- A “small vessel” disease
- Diabetic eye disease is the leading cause of blindness in the US
- Loss of pericytes results in leaky blood vessels in the retina and subsequent bleeding
- Blood in the retina results in “drowning” of the rods and cones
- Large fluctuations in blood sugar result in transient vision changes throughout the day
Diabetic retinopathy (non-proliferative)
Diabetic retinopathy (proliferative)
Other systemic conditions can adversely affect the visual system...
Corneal deposits
Ocular inflammation
Systemic inflammation
Hypertension (elevated blood pressure)
Systemic infection
Cancer
Visual field loss
Take home pearls...

- Have a dilated eye exam every 1-2 years
  - Regardless of whether or not you are having vision problems
- Don’t ignore ocular symptoms
  - Decreased vision, visual disturbances, ocular pain
  - Time is of the essence
Thank you!
Programs and Services
An Advocate for Consumers

Prevent Blindness promotes eye health and safety while working to find the cure for blinding eye diseases and increasing access to eye care for those in need.
Public Education Initiatives

Advocating for eye safety and access to vision care for all Ohioans
Early Detection of Preventable Vision Problems

PBO provides vision screening services, personal visual risk assessments, and eye health and safety education at workplace sites and community health fairs/events.
Expanding Vision Research

Prevent Blindness and the Ohio Aging Eye Public Private Partnership partner with vision partners throughout the state in the Aging Eye Summit Series- a series of disease specific conferences on the most common causes of vision loss due to age related eye diseases.

April, 2016- Aging Eye Summit in partnership with Case Western Reserve University
Adult Eye Health & Safety

EyeWatch- Eye Health Presentation Toolkit
Ohio’s Aging Eye Public Private Partnership
Advocacy
Education
Research
Eye Care for Ohioans

PBO partners with school districts, health departments and social service agencies to identify Ohioans in need of eye care.

The program provides access to more than 5,000 people eye care providers throughout Ohio.
Thank You!

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