

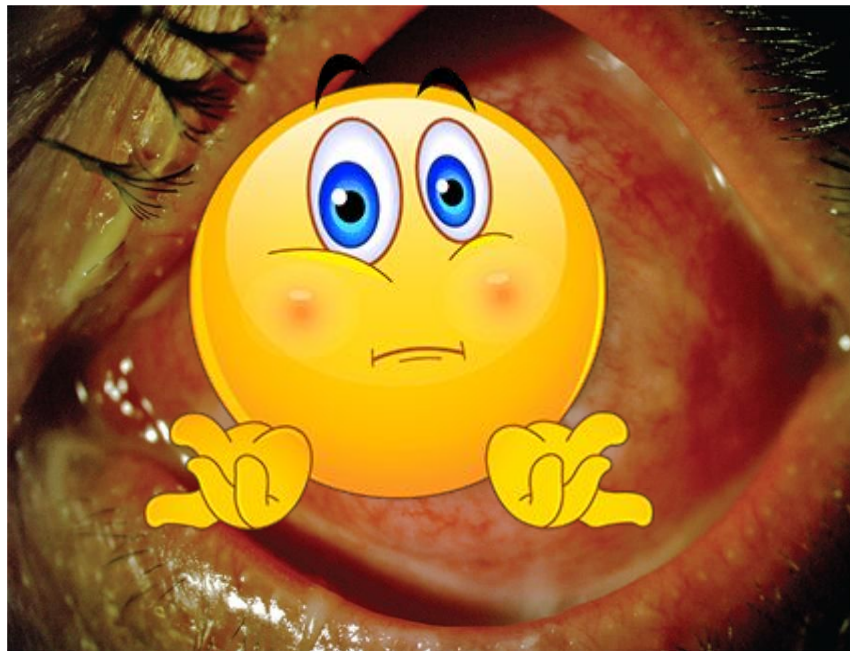
Driving Vision Standards: Requirements and Difficult Conversations

Tyler Dowdall, OD

Harper's Point Eye Associates
Northern Kentucky Eyecare Center

Most Difficult Conversations to Have

- **Poor vision prognosis** (ex: Retinitis Pigmentosa, Severe Glaucoma, Central Retinal Artery Occlusion)
- Bacterial keratoconjunctivitis caused by **sexually transmitted disease** (ie. “you should talk to your partner(s)”)
- **Unknown cause** of vision loss
- **Not safe for patient to be driving** based on vision



Types of Driving Licenses

1. **Class D Driver License**
2. School Bus/Commercial Driver License (CDL)
3. Motorcycle License (MC) or endorsement
4. Scooter License or endorsement
5. Motorized bicycle (moped) License



BMV Vision Requirements (Ohio)

No Restrictions

- Binocular VA: 20/40 or better
- Monocular VA: 20/30 or better
- 70 degrees temporal to fixation, both sides

Daytime Driving Only

- Binocular VA: 20/50 to 20/70
- Monocular VA: 20/40 to 20/60
- 70 degrees temporal to fixation, both sides

Must have **outside mirror** mounted on the side of the more limited visual field

- 70 degrees temporal to fixation in one eye and at least 45 degrees temporal fixation in other

BMV Vision Requirements (Ohio)

Minimum Visual Acuity Standards Chart

Binocular Vision (Vision in Both Eyes)

License Type	Unrestricted Driving			Daylight Driving			No Driving Privileges
	Right Eye	Left Eye	Both	Right Eye	Left Eye	Both	Right Eye, Left Eye, Both
CDL	20/40	20/40	20/40	N/A	N/A	N/A	Worse than 20/40, both eyes together
CDL w/V	20/200	20/200	20/40	20/200	20/200	20/50 to 20/70	Worse than 20/70, both eyes together
Class D	20/200	20/200	20/40	20/200	20/200	20/50 to 20/70	Worse than 20/70, both eyes together
Motorcycle	20/200	20/200	20/40	20/200	20/200	20/50 to 20/70	Worse than 20/70, both eyes together
Motorized Bicycle	20/200	20/200	20/40	20/200	20/200	20/50 to 20/70	Worse than 20/70, both eyes together

Monocular Vision (Vision in One Eye Only)

License Type	Unrestricted Driving			Daylight Driving			No Driving Privileges		
	Primary Eye	Deficient Eye	Both	Primary Eye	Deficient Eye	Both	Primary Eye	Deficient Eye	Both
CDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDL w/V	Worse than 20/200	Worse than 20/200	20/30	20/40 to 20/60	Worse than 20/200	20/40 to 20/60	Worse than 20/60, both eyes together		
Class D	Worse than 20/200	Worse than 20/200	20/30	20/40 to 20/60	Worse than 20/200	20/40 to 20/60	Worse than 20/60, both eyes together		
Motorcycle	Worse than 20/200	Worse than 20/200	20/30	20/40 to 20/60	Worse than 20/200	20/40 to 20/60	Worse than 20/60, both eyes together		
Motorized Bicycle	Worse than 20/200	Worse than 20/200	20/30	20/40 to 20/60	Worse than 20/200	20/40 to 20/60	Worse than 20/60, both eyes together		

Frequency of License Renewal

Ohio

- Every 4 years if renewed within 90 days of expiration (3 years if before 90 days)
- Tests vision each renewal

Kentucky

- Every 4 years
- Tests vision for first exam and none after for renewal unless expired 1+ years or reported

Indiana

- Every 6 years if under 75, every 3 years 75-84, and every 2 years 85+ years old
- Can be renewed online if vision screening form completed by optometrist or ophthalmologist
- In person required only if 75 years or older, change in name, or other restriction to test vision (or form filled out by optometrist or ophthalmologist)

Devices Used by the BMV

Visual Acuity Testing

Horizontal Field of Vision



Devices Used by Ohio State College of Optometry Environmental Vision Clinic

Visual Acuity: Bailey Lovie Chart



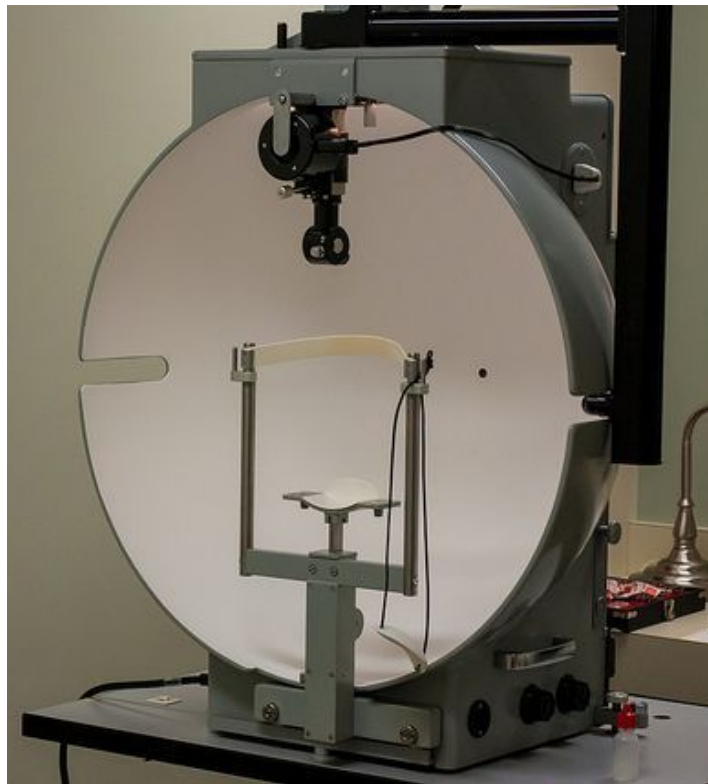
Contrast Sensitivity: Mars Chart



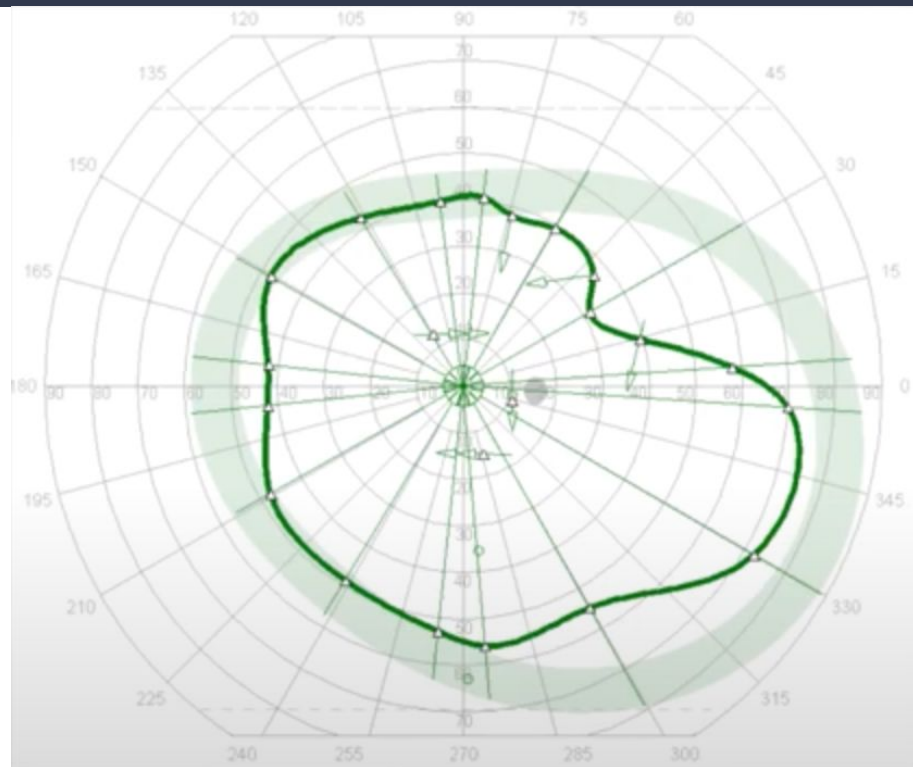
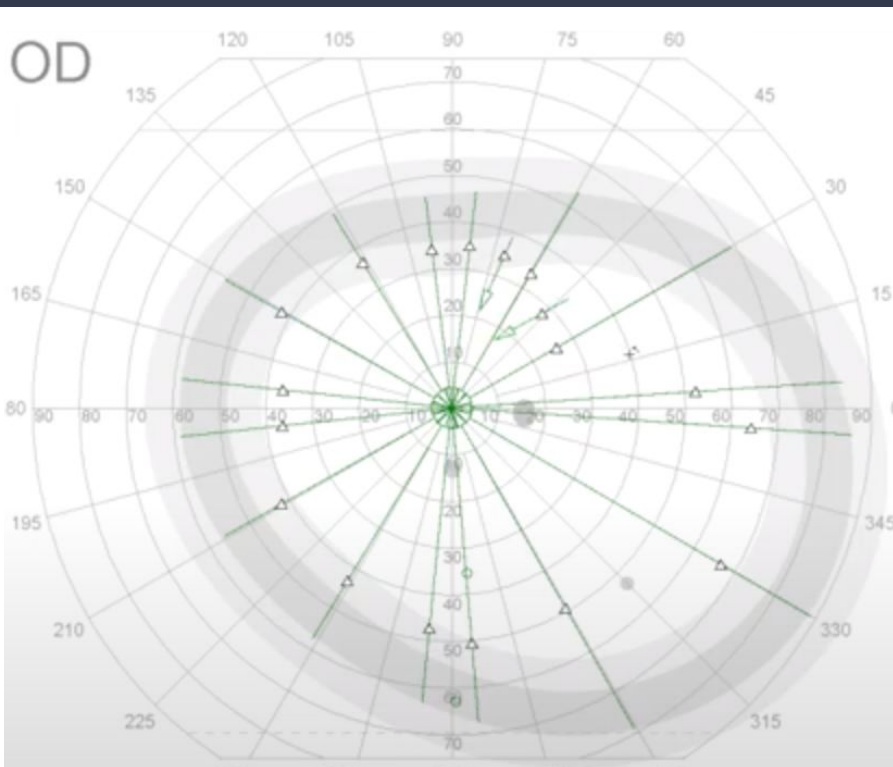
Visual Fields: Octopus Kinetic and Static (Octopus 900)



Goldmann Perimetry



Octopus 900 Kinetic Perimetry



Conditions Most Likely to Impact Driving

- Refractive error
- Corneal changes
 - Ectasia/Keratoconus
 - Corneal Scarring
- Lens changes
 - Cataract
 - Lens subluxation
- Retinal Conditions
 - Retinitis Pigmentosa
 - Histoplasmosis/Toxoplasmosis scarring
 - Panretinal Photocoagulation (PRP)
 - Inherited Retinal Dystrophies
 - Stargardt Disease
 - Leber's Congenital Amaurosis
- Systemic Conditions
 - Diabetes Mellitus
 - Hypertension

Case #1

Ocular History/Findings

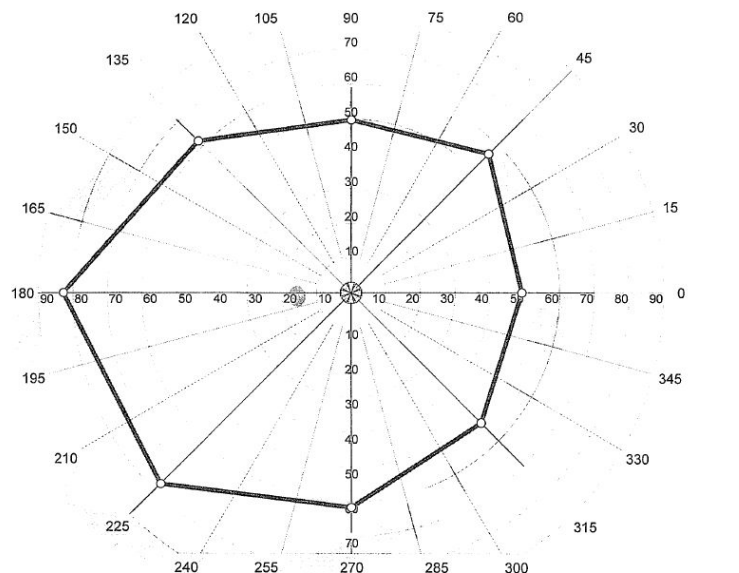
- 61 yo caucasian female
- Refractive amblyopia (longstanding, stable)
 - BCVA: OD: 20/150 OS: 20/20
 - MRx: OD: +7.00 OS: +3.00-0.50x071
- Narrow angles with ocular hypertension
 - LPI OD/OS (patent)
 - Taking Timolol BID OU
 - C/D: 0.2/0.2 OD/OS

Amblyopia



Case #1 Kinetic Visual Fields

Left eye (OS) Jan 28, 2020 1:09:46 PM

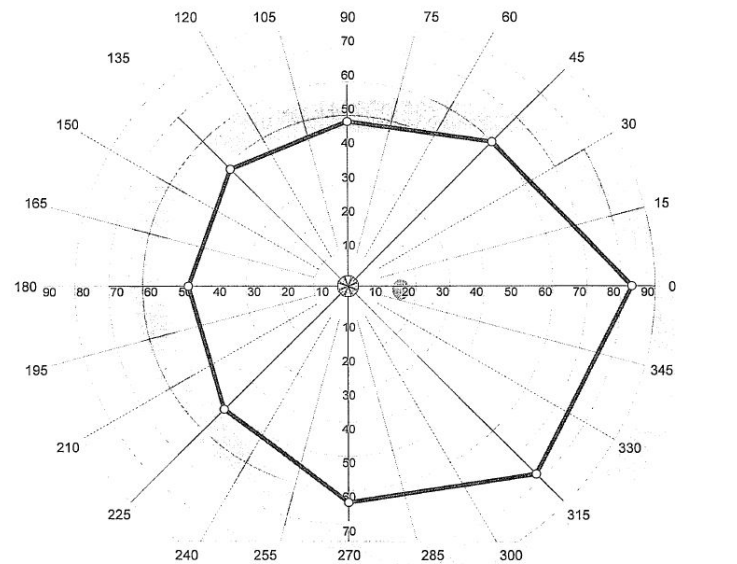


SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 5.75/0.0/0
 Pupil [mm]:

No. RT vectors: 8 / 0
 Duration [min:sec]: 00:47
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

III4e 5°/s

Right eye (OD) Jan 28, 2020 1:06:43 PM



SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 9.75/0.0/0
 Pupil [mm]:

No. RT vectors: 8 / 0
 Duration [min:sec]: 00:49
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

III4e 5°/s

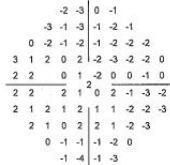
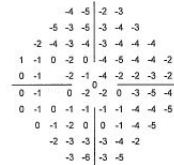
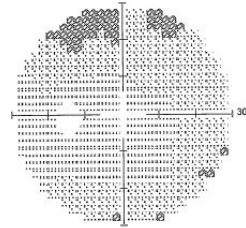
Case #1 Static Visual Fields

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 03:40
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 5.06
 Visual acuity: null
 RX: 5.75

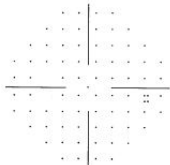
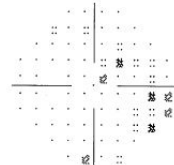
Date: 01/28/2020
 Time: 13:20:12
 Age: 50



MD -2.3
 PSD 1.6

Total deviation

Pattern deviation



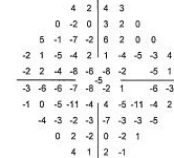
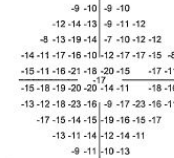
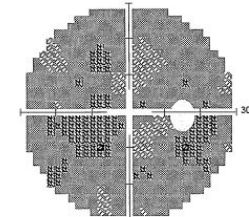
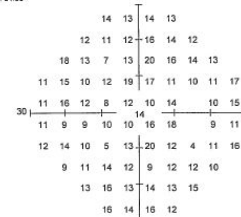
Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6:

Fixation monitor: Min
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 25 %
 Test duration: 04:00
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 4.06
 Visual acuity: null
 RX: 9.75

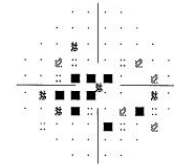
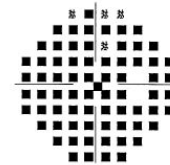
Date: 01/28/2020
 Time: 13:13:53
 Age: 50



MD -16.5
 PSD 3.8

Total deviation

Pattern deviation



Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6:

Case #1 Driving Determination

Would **PASS** drivers exam

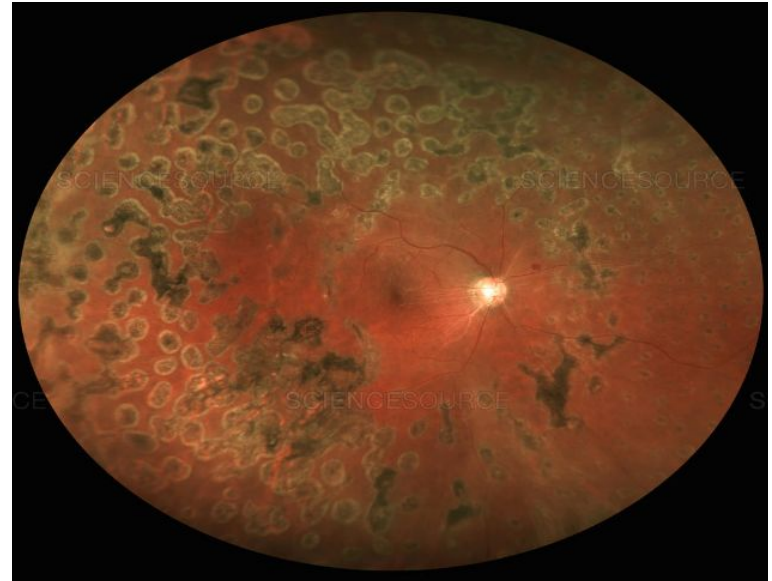
- Acuity meets binocular requirement
- No constriction of kinetic visual field



Case #2

Ocular History/Findings

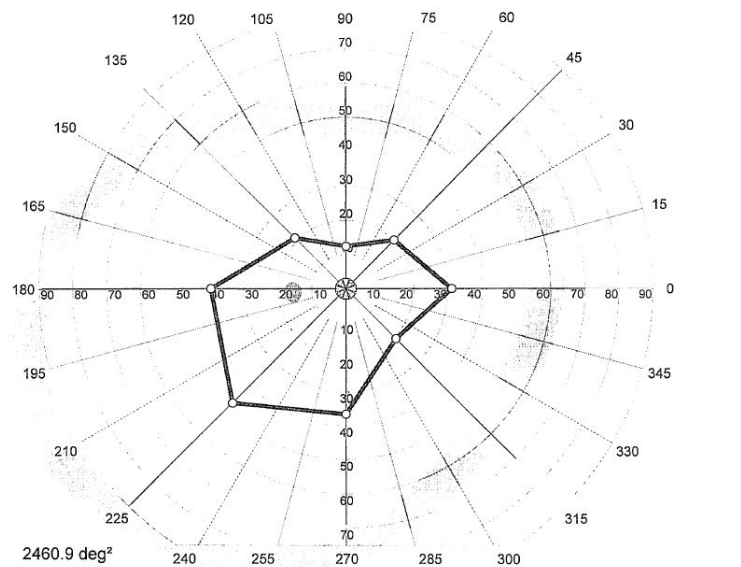
- 57 yo Caucasian female
- History of proliferative diabetic retinopathy with extensive panretinal photocoagulation (PRP) OD/OS
- Cataract extraction OD only in 2014
- BCVA: OD: 20/20 OS: 20/60
- OS: 3+ NSC, 3+ PSC, 2+ ACC



<https://www.sciencesource.com/archive/Panretinal-Photocoagulation-Scars-SS2583287.html>

Case #2 Kinetic Visual Fields

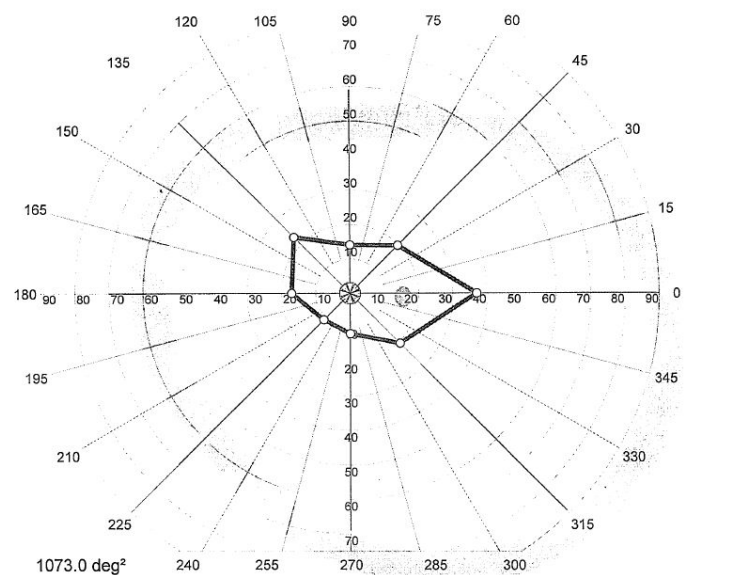
Left eye (OS) Jan 7, 2020 9:13:36 AM



SSA test score:	No	No. RT vectors:	8 / 0
Parameters:	31.4 asb	Duration [min:sec]:	01:38
Reaction time [ms]:		RT corrected:	
Trial lenses S/C/A:	4.0/-2.0/170	Visual Acuity [ft]:	
Pupil [mm]:		IOP [mmHg]:	



Right eye (OD) Jan 7, 2020 9:08:55 AM



SSA test score:	No	No. RT vectors:	8 / 0
Parameters:	31.4 asb	Duration [min:sec]:	01:52
Reaction time [ms]:		RT corrected:	
Trial lenses S/C/A:	3.0/0.0/0	Visual Acuity [ft]:	
Pupil [mm]:		IOP [mmHg]:	



Case #2 Static Visual Fields

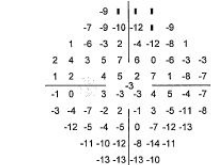
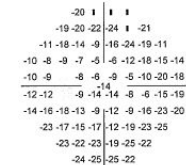
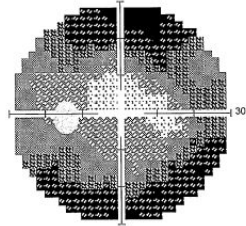
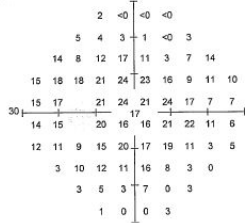
32

Fixation monitor: Off
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 30 %
 Test duration: 09:31
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 2.17
 Visual acuity: null
 RX: 4.0 -2.0 178.0

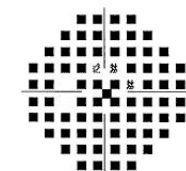
Date: 01/07/2020
 Time: 09:22:36
 Age: 57



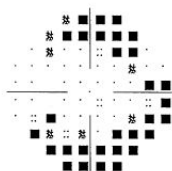
MD -14.4
 PSD 6.0

Total deviation

Pattern deviation



[%]
 :: < 5
 :: < 2
 :: < 1



Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6:

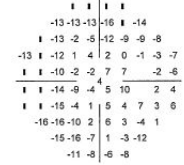
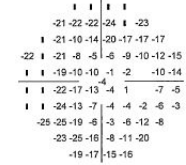
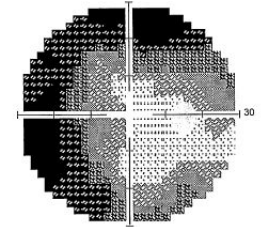
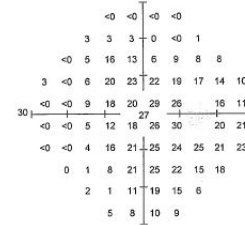
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 03:05
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 2.53
 Visual acuity: null
 RX: 3.0

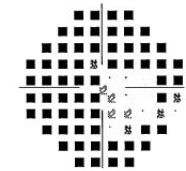
Date: 01/07/2020
 Time: 09:18:06
 Age: 57



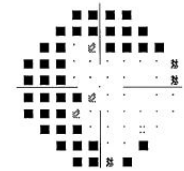
MD -13.7
 PSD 8.3

Total deviation

Pattern deviation



[%]
 :: < 5
 :: < 2
 :: < 1



Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6:

Case #2 Driving Determination

Would **FAIL** drivers exam

- Acuity meets requirement
- Kinetic visual field testing does not meet requirement in either eye



FAIL

Case #3

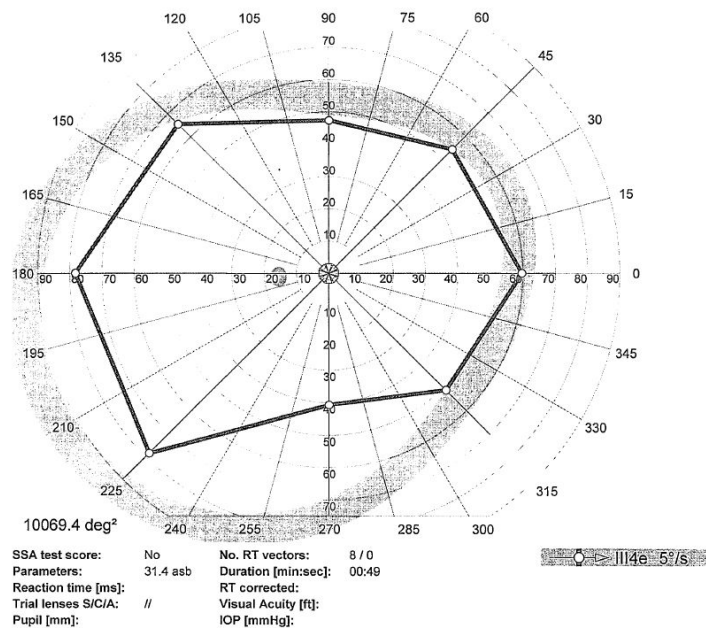
Ocular History/Findings

- 15 yo African American female
- Retinoblastoma with OD evisceration at birth
- BCVA: OD: NLP OS: 20/20

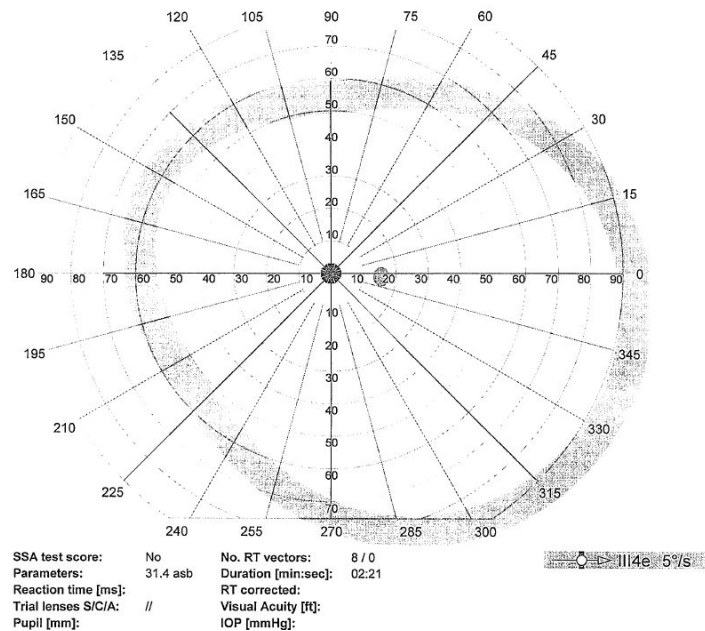


Case #3 Kinetic Visual Fields

Left eye (OS) Jan 17, 2020 10:45:42 AM



Right eye (OD) Jan 17, 2020 10:49:13 AM



Case #3 Static Visual Fields

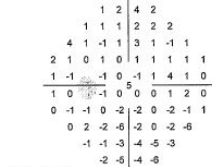
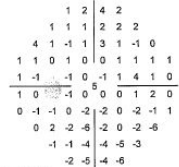
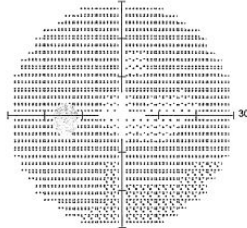
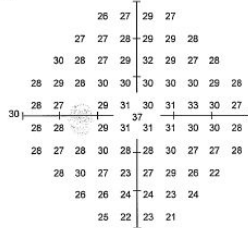
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 00
 False pos errors: 75 %
 False neg errors: 0 %
 Test duration: 02:48
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 3.81
 Visual acuity: null
 RX: -1.542.0

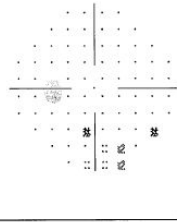
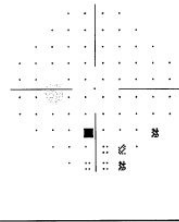
Date: 01/17/2020
 Time: 10:35:19
 Age: 15



MD -0.3
 PSD 2.0

Total deviation

Pattern deviation



[%]
 << <5
 < <2
 < <1
 < <0.5

Harpers Point Eye Associates - Norv
 4600 Smith Road Norwood OH @ 6:

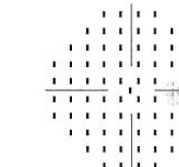
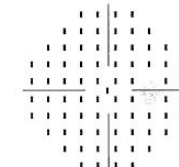
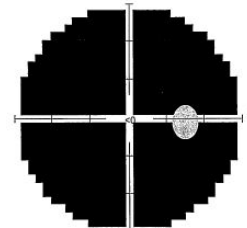
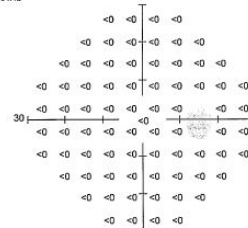
32

Fixation monitor: Off
 Fixation target: Cross marks
 Fixation losses: 00
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 04:42
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter:
 Visual acuity: null
 RX:

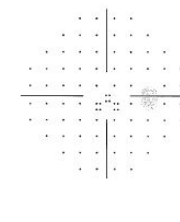
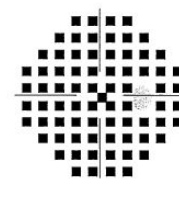
Date: 01/17/2020
 Time: 11:00:25
 Age: 15



MD -30.5
 PSD 2.1

Total deviation

Pattern deviation



[%]
 << <5
 < <2
 < <1

Harpers Point Eye Associates - Norv
 4600 Smith Road Norwood OH @ 6:

Case #3 Driving Determination

Would **PASS*** drivers exam

- Acuity meets binocular requirement
- No vision right eye but left eye meets 70° temporal and 45° nasal requirement

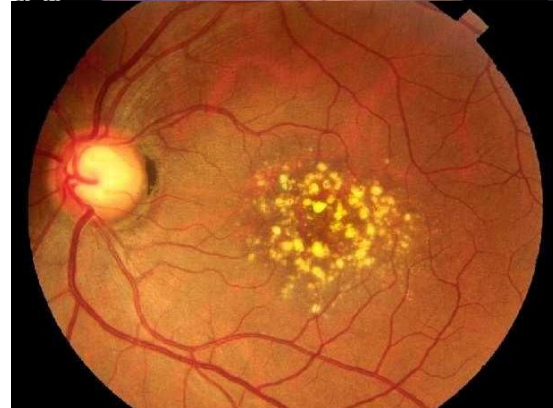
* Would be required to have side mirrors on car



Case #4

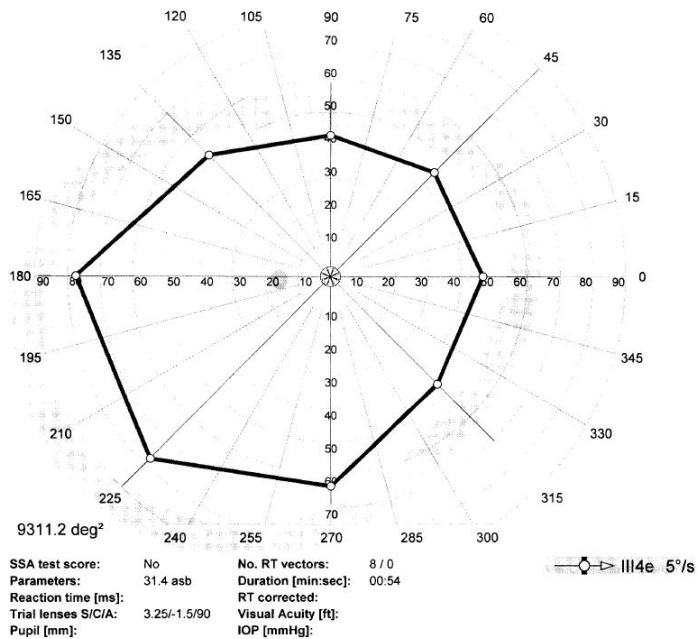
Ocular History/Findings

- 59 yo Caucasian female
- History of Nonexudative Age-Related Macular Degeneration (more advanced OD)
- Told by previous optometrist that she should not be driving
- BCVA:
 - OD: 20/150 (Eccentric Viewing)
 - OS: 20/30

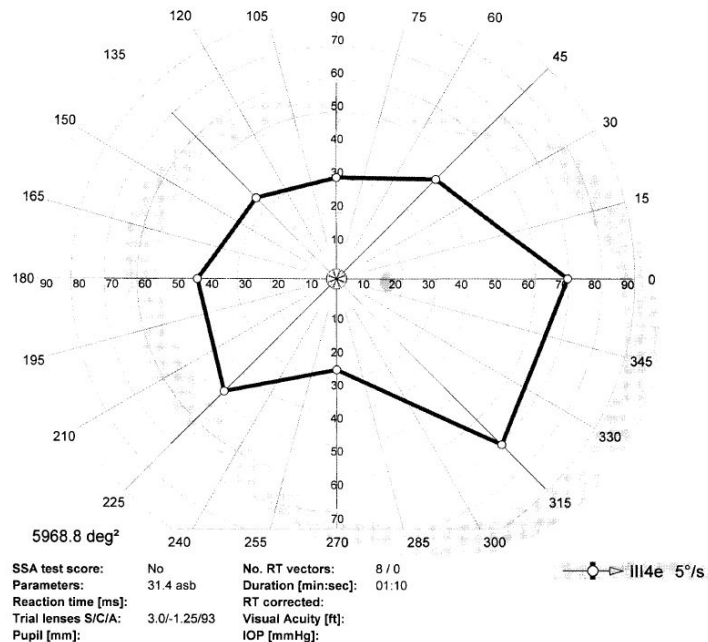


Case #4 Kinetic Visual Fields

Left eye (OS) Dec 27, 2019 10:46:45 AM



Right eye (OD) Dec 27, 2019 10:43:24 AM



Case #4 Static Visual Fields

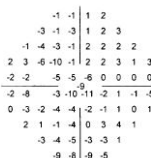
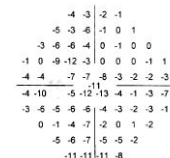
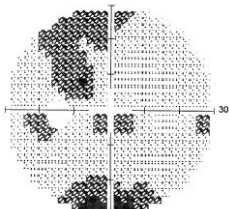
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 00
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 02:31
 Fovea On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 6.26
 Visual acuity: null
 RX: 3.25 -1.5 90.0

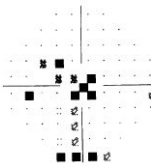
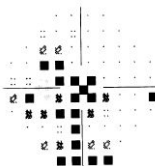
Date: 12/27/2019
 Time: 10:54:34
 Age: 59



MD -9.9
 PSD 4.1

Total deviation

Pattern deviation



[%]
 < 5
 < 2
 < 1
 < 0.5

Harpers Point Eye Associates - Norv
 4600 Smith Road Norwood OH @ 6:

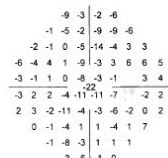
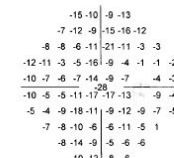
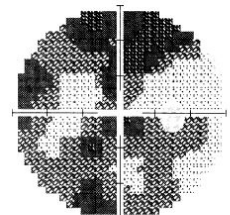
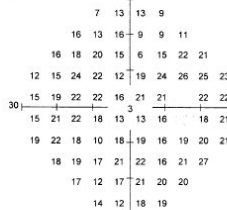
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 00
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 02:50
 Fovea On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 6.65
 Visual acuity: null
 RX: 3.0 -1.25 93.0

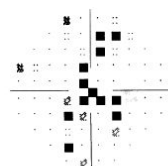
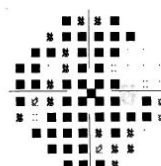
Date: 12/27/2019
 Time: 10:50:34
 Age: 59



MD -9.7
 PSD 5.0

Total deviation

Pattern deviation



[%]
 < 5
 < 2
 < 1
 < 0.5

Harpers Point Eye Associates - Norv
 4600 Smith Road Norwood OH @ 6:

Case #4 Driving Determination

Would PASS drivers exam

- BCVA OS meets requirement
- Kinetic VF meets requirement

What to do now?

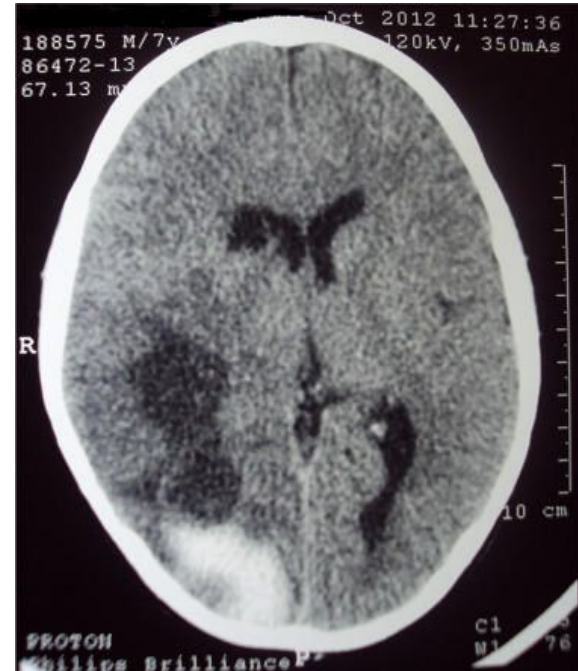
Refer to Ohio State Clinic (for Ohio patients)



Case #5

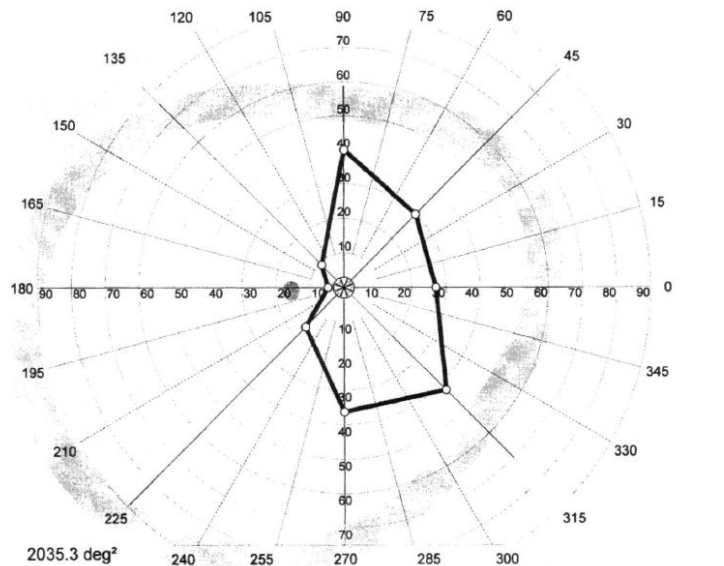
Ocular History/Findings

- 19 yo caucasian male
- Hx of parieto-occipital hematoma last year
 - Lost left portion of vision and claims to be improving
- BCVA: OD: 20/20 OS: 20/20
- No pertinent findings on SLE



Case #5 Kinetic Visual Fields

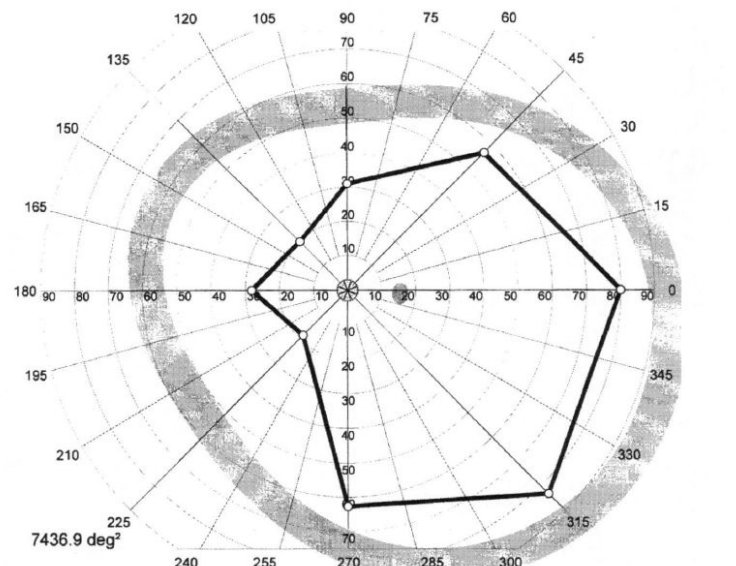
Left eye (OS) Nov 8, 2019 9:27:25 AM



SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 1.5/-1.75/174
 Pupil [mm]:

No. RT vectors: 8 / 0
 Duration [min:sec]: 01:42
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

Right eye (OD) Nov 8, 2019 9:25:01 AM



SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 1.25/-1.25/9
 Pupil [mm]:

No. RT vectors: 8 / 0
 Duration [min:sec]: 01:08
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

Case #5 Static Visual Fields

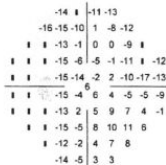
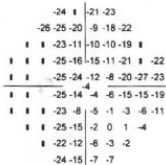
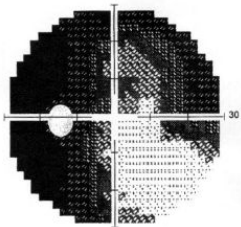
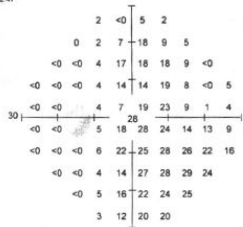
32

Fixation monitor: Off
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 25 %
 False neg errors: 50 %
 Test duration: 02:47
 Fovea: On

Stimulus: H / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 4.61
 Visual acuity: null
 RX: 1.5 -1.75 174.0

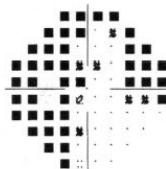
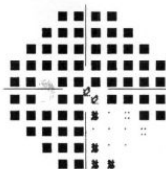
Date: 11/06/2019
 Time: 09:35:56
 Age: 18



MD -15.6
 PSD 9.8

Total deviation

Pattern deviation



[%]
 □ < 5
 □ < 2
 □ < 1
 □ < 0.5

Harpers Point Eye Associates - Non
 4600 Smith Road Norwood OH @ 6:

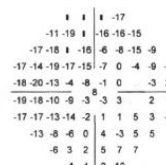
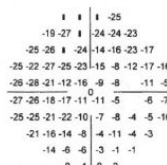
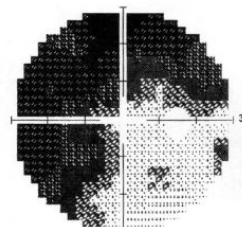
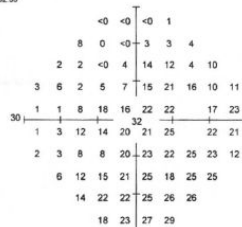
32

Fixation monitor: Off
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 25 %
 Test duration: 02:53
 Fovea: On

Stimulus: H / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 4.72
 Visual acuity: null
 RX: 1.25 -1.25 0.0

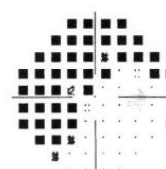
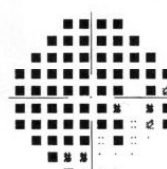
Date: 11/06/2019
 Time: 09:31:55
 Age: 18



MD -15.4
 PSD 8.3

Total deviation

Pattern deviation



[%]
 □ < 5
 □ < 2
 □ < 1
 □ < 0.5

Harpers Point Eye Associates - Non
 4600 Smith Road Norwood OH @ 6:

Case #5 Driving Determination

Would **FAIL** drivers exam

- Acuity meets requirement
- Kinetic visual field testing does not meet requirement in either eye to left side

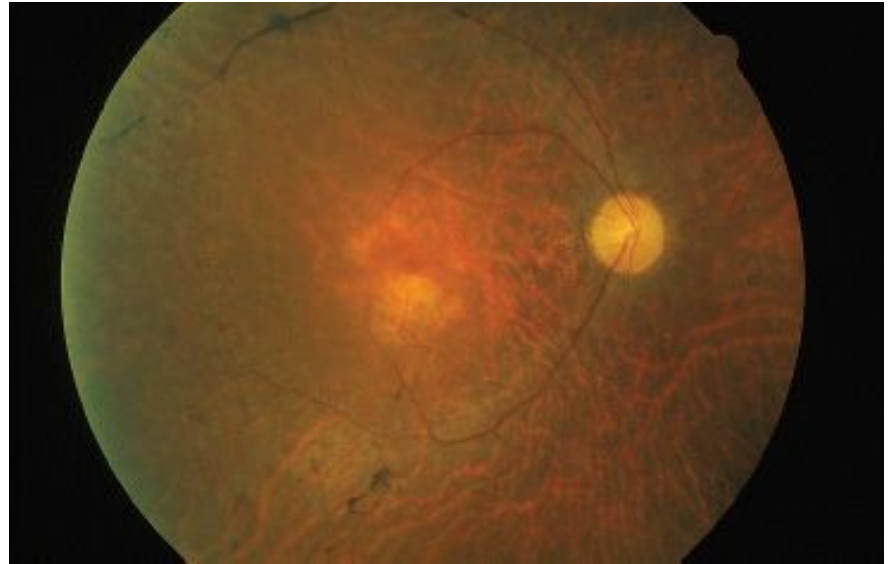


FAIL

Case #6

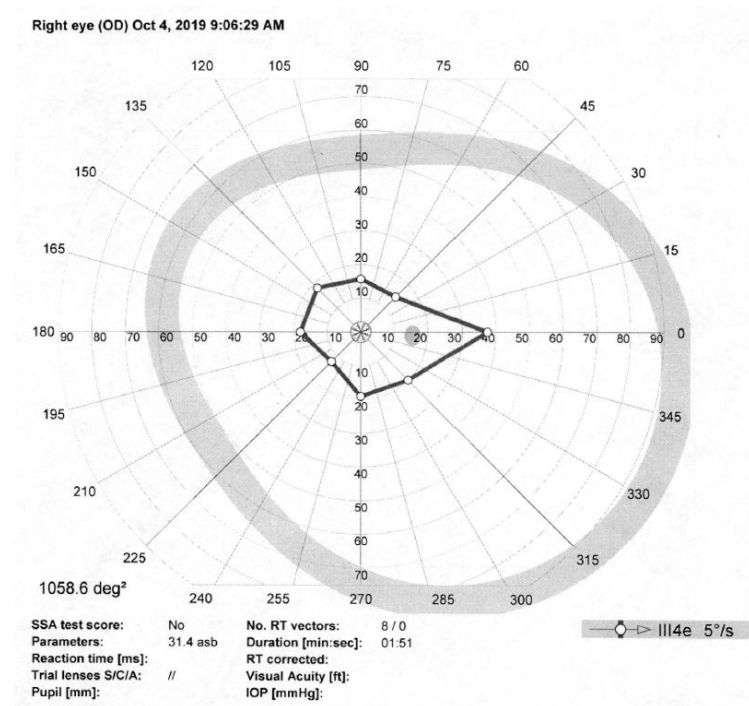
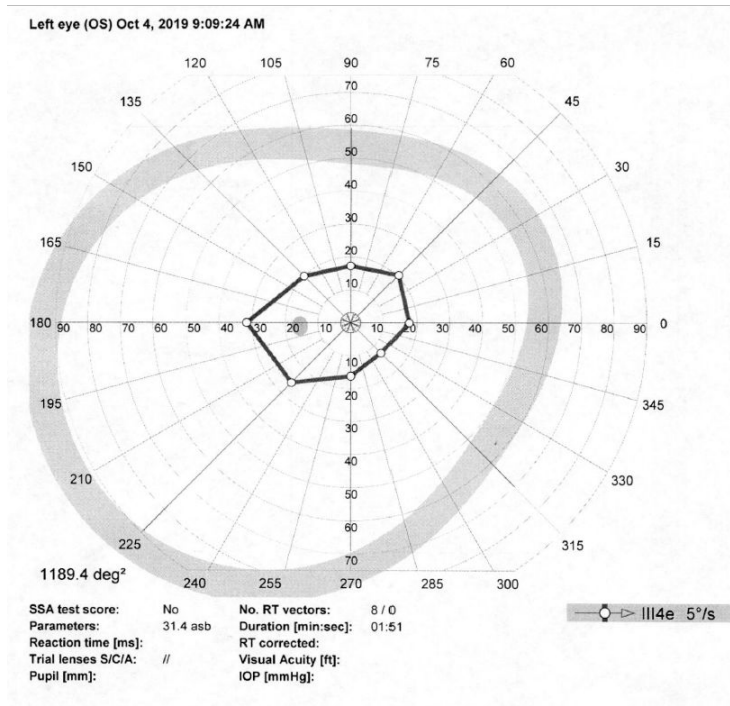
Ocular History/Findings

- 19yo caucasian male
- Diagnosed with retinitis pigmentosa as an adolescent
- BCVA: OD: 20/20 OS: 20/20
- Fundoscopy findings: trace-mild atrophy with bone spicules in periphery 360deg



<https://entokey.com/21-hereditary-retinitis-pigmentosa/>

Case #6 Kinetic Visual Fields



Case #6 Static Visual Fields

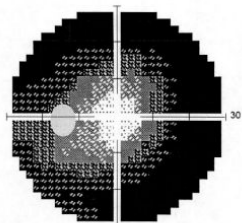
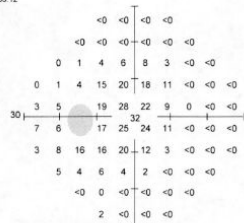
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 25 %
 Test duration: 03:12
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 5.39
 Visual acuity: null
 RX: 3.75

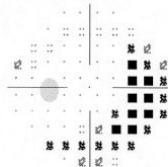
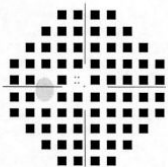
Date: 10/04/2019
 Time: 09:20:42
 Age: 19



MD -22.0
 PSD 8.5

Total deviation

Pattern deviation



[%]
 >> < 5
 > < 2
 > < 1
 > < 0

Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6

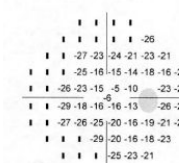
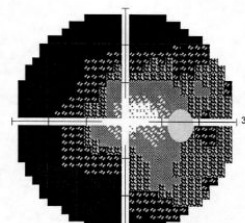
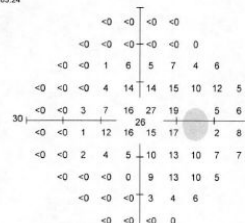
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 25 %
 False neg errors: 0 %
 Test duration: 03:24
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 5.16
 Visual acuity: null
 RX: 4.25 -1.5 170.0

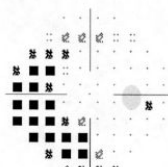
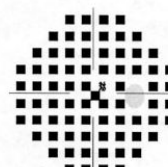
Date: 10/04/2019
 Time: 09:15:46
 Age: 19



MD -23.0
 PSD 6.8

Total deviation

Pattern deviation



[%]
 >> < 5
 > < 2
 > < 1
 > < 0

Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6

Case #6 Driving Determination

Would **FAIL** drivers exam

- Acuity meets requirement
- Kinetic visual field testing does not meet requirement in either eye

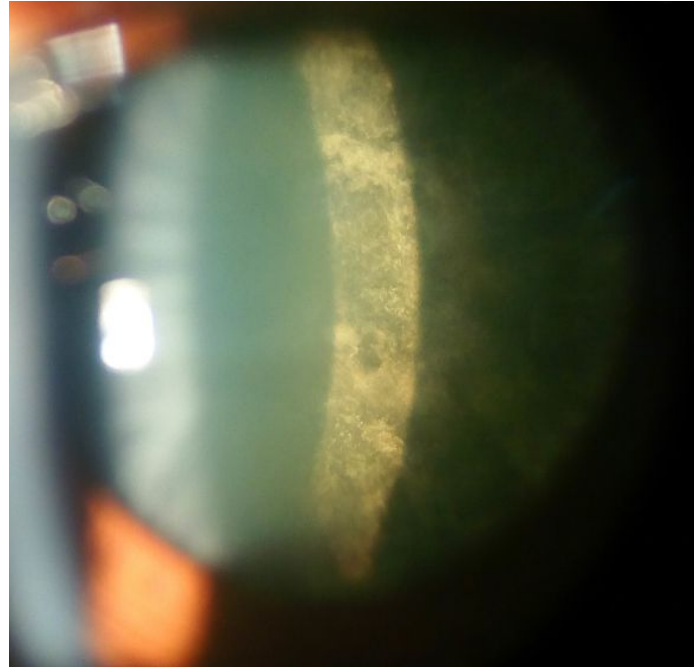


FAIL

Case #7

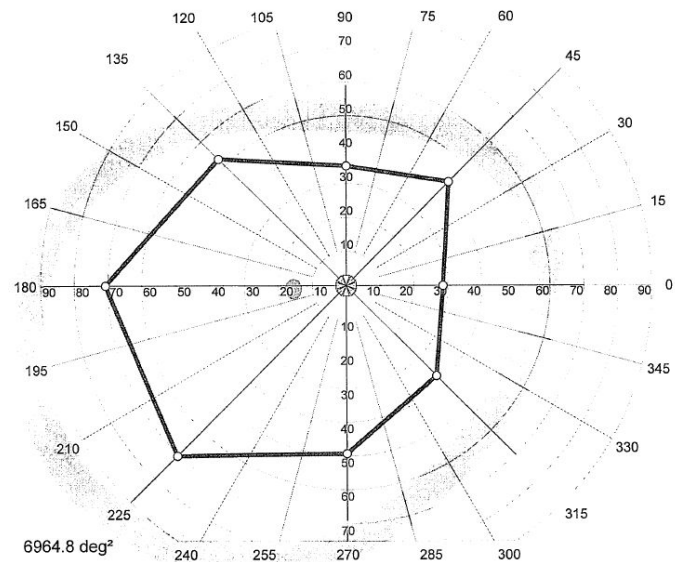
Ocular History/Findings

- 46 yo caucasian male
- No pertinent ocular history
- BCVA: OD: 20/50 OS: 20/100
- SLE: OD: 3+ PSC OS: 3+ PSC, 1+ ASC



Case #7 Kinetic Visual Fields

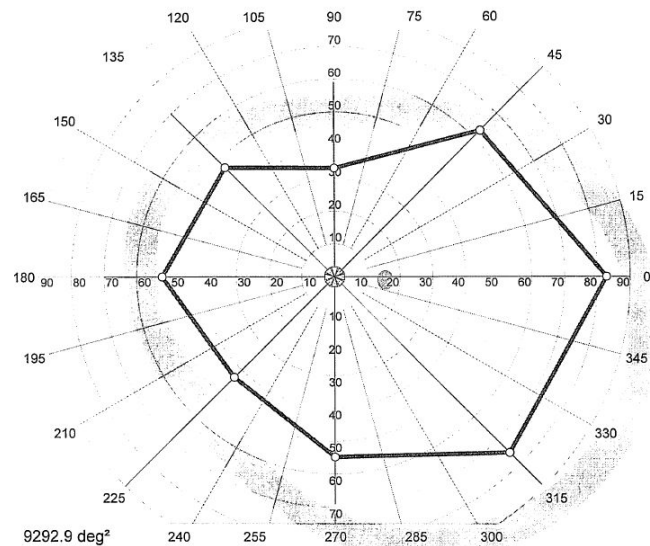
Left eye (OS) Dec 10, 2019 2:42:40 PM



SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 2.0/0.0/0
 Pupil [mm]:
 No. RT vectors: 8 / 0
 Duration [min:sec]: 01:07
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

III4e 5/s

Right eye (OD) Dec 10, 2019 2:39:58 PM



SSA test score: No
 Parameters: 31.4 asb
 Reaction time [ms]:
 Trial lenses S/C/A: 2.0/0.0/0
 Pupil [mm]:
 No. RT vectors: 8 / 0
 Duration [min:sec]: 00:54
 RT corrected:
 Visual Acuity [ft]:
 IOP [mmHg]:

III4e 5/s

Case #7 Static Visual Fields

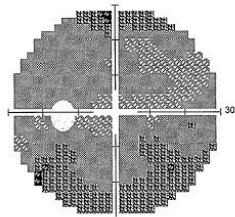
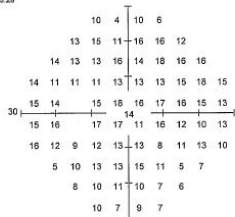
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 03:28
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 5.09
 Visual acuity: null
 RX: 2.5

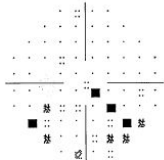
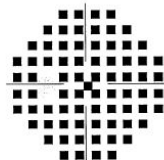
Date: 12/10/2019
 Time: 14:50:42
 Age: 46



MD: -15.2
 PSD: 3.2

Total deviation

Pattern deviation



[%]
 << 5
 < 2
 < 1

Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6'

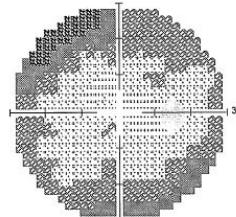
32

Fixation monitor: AET
 Fixation target: Cross marks
 Fixation losses: 0/0
 False pos errors: 0 %
 False neg errors: 0 %
 Test duration: 03:11
 Fovea: On

Stimulus: III / 4000 asb / White
 Background: 31 asb / White
 Strategy: TOP

Pupil diameter: 4.15
 Visual acuity: null
 RX: 2.0

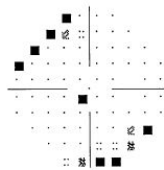
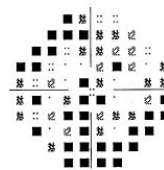
Date: 12/19/2019
 Time: 14:48:33
 Age: 46



MD: -6.1
 PSD: 2.8

Total deviation

Pattern deviation



[%]
 << 5
 < 2
 < 1

Harpers Point Eye Associates - Nov
 4600 Smith Road Norwood OH @ 6'

Case #7 Driving Determination

Would **PASS*** drivers exam

- Acuity meets binocular requirement for daytime driving only
- No limitations in field of vision

* Daytime only

Ask about comfort with driving due to severity of cataracts



Talking to Patients Who Fail

- Ask patient about how they feel about driving regarding close calls, concerns, etc.
- Fully explain any flaws or problems in their vision as it would pertain to driving
- Assess the options available:
 - Different refraction/contact lenses
 - Cataract surgery
 - YAG for PCO
 - Lid surgery



Talking to Patients Who Fail

- Educate on other options for driving with current vision
 - Ohio State Optometry approved optometrists review of case
 - Bioptic telescopic device program
- Counsel patient and a family member (if possible) on why it is not safe for them to drive



Reporting A Patient Who Fails

Kentucky

- Email: KYTC.MedicalReviewBoard@ky.gov
- Fax: (844) 503-4111
- Mail: Kentucky Transportation Cabinet,
Department of Vehicle Regulation, Attn:
Medical Review Board, 200 Mero Street,
Frankfort, KY 40622

Ohio

- Fax letter to: 614-308-5211
- Mail letter to: OH BMV Attention Medical PO
BOX 16583 Columbus, OH 43216
- Letter must include:
 - Your name, license number, and phone number
 - Drivers name, DOB, license number

Legal Consequences of Reporting

- Physicians are **NOT required by law** to report drivers who have medical conditions that may impact their driving
- Physicians can be subject to **lawsuits by the driver**
- Physicians may also be **liable for injuries to third parties** resulting from a patient's actions

So what should we do?



Alternative Transportation for Patients

- Family
- Public Transportation
- Transportation through insurance companies
- Ride-sharing (Uber, Lyft, taxis, etc)



Low Vision Services

Cincinnati

- Cincinnati Association for the Blind and Visually Impaired (CABVI)
- Clovernook Center for Blind and Visually Impaired
- Cincinnati VA
- Dayton VA

Kentucky

- Low Vision Services of Kentucky (Lexington and another office in Florence, KY)
- Primary Eyecare Associates

Columbus

- Columbus VA
- The Ohio State University College of Optometry Low Vision Clinic
- Low Vision Doctors of Ohio

Cleveland/Akron

- Cleveland Sight Center
- Cleveland Clinic Low Vision Rehabilitation
- Judith A. Read Low Vision Services (Akron)

Bioptic Telescope Program

Ohio

- The Ohio State University (Columbus)
- Judith A. Read Low Vision Services with Edwin Shaw Rehab program (Akron)

Kentucky

- Frazier Rehab Institute Bioptic Driving Program (Louisville)
- Kentucky Office of Vocational Rehabilitation / Blind Services Division (Lexington/Frankfort)

Indiana

- Low Vision Centers of Indiana (Indianapolis)

All three states require significant training with a bioptic driving rehabilitation specialist

Bioptic Telescope Standards

Specialty testing center

- Same VA requirements*
- Same VF requirements*

* Can use telescope during vision testing

Only daytime driving privileges at first

Nighttime driving privileges with separate training
and after clean daytime bioptic driving record



Info About Bioptic Telescopes

- 95% of vision through carrier, not bioptic
- Ring scotoma forms while viewing through bioptic
- 43 states (including Ohio, Kentucky, and Indiana) allow bioptic telescopes for driving
- Cost: \$5,000-7,000
 - Several programs can assist with some costs
- Typically at least 18 years old



Bioptic Telescope Safety

- Studies having shown crash rates between 1.34 and 3 times higher in bioptic drivers than in control groups
- Driving experience was the most predictive factor for crash rate, and NOT vision

(Janke 1983; Lippmann, Corn et al. 1988).

(Invest Ophthalmol Vis Sci 2015, Dougherty, Flomm et al. 2015)



Summary

- Identify your patients that are a risk on the road even if uncorrected high myope waiting on glasses
- Have that difficult conversation
- Provide solutions to see better or alternative modes of transportation
- Refer to low vision specialist or bioptic program when necessary
- Report patient to BMV if absolutely necessary



Questions?

Feel free to contact me at:

TylerWDowdall@gmail.com