

# Eye care and Falls

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Suffolk Local Optometric Committee (LOC),  
Falls Prevention Study Day,  
East Suffolk & North Essex  
NHS Foundation Trust,  
24 October 2019

# Vision & Falls

- Causes of poor vision
- Optical factors to reduce risk of falls
- Optometry referrals
- Charles Bonnett Syndrome
- How you can help eye care of your patients

# Frailty

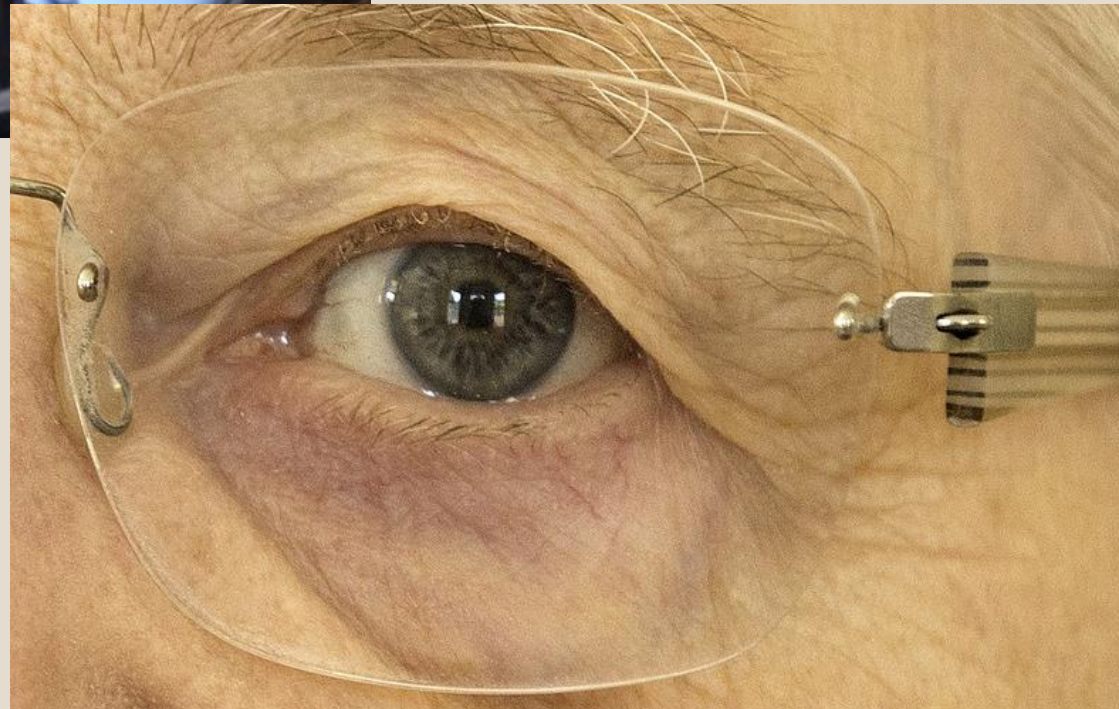
- “any interaction between an older person and a health professional should include an assessment which helps to identify if the individual has frailty”

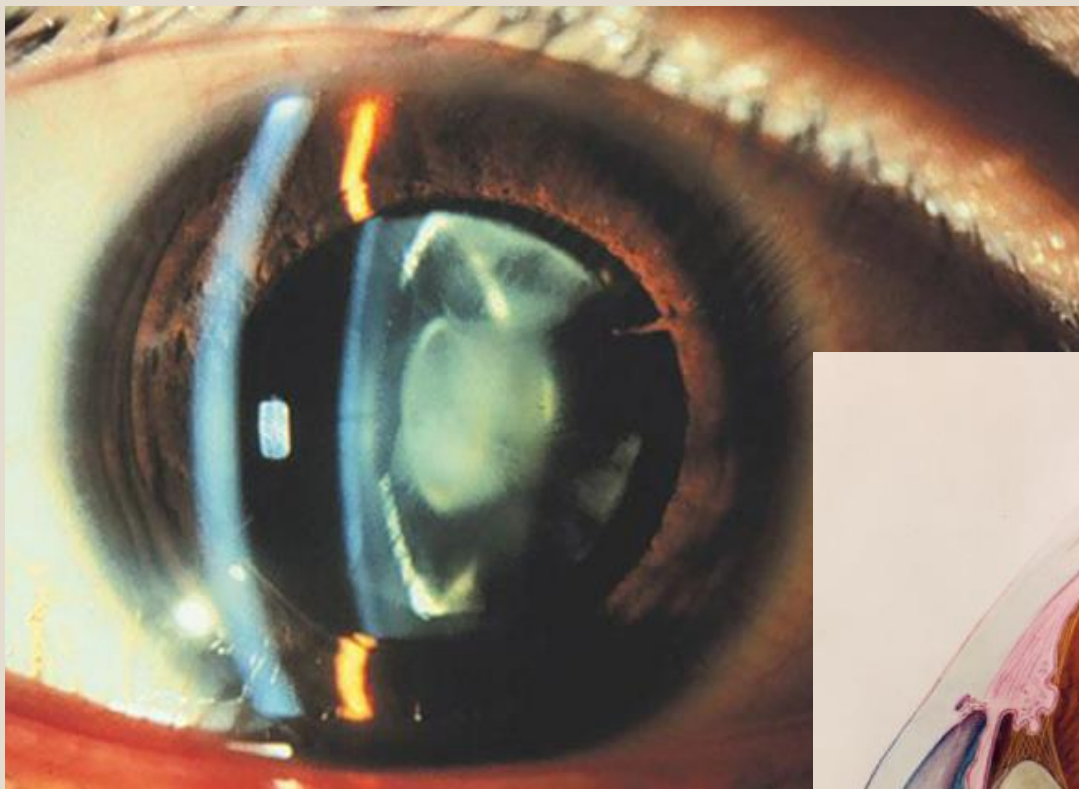
(FFF, British Geriatrics Society, 2017)

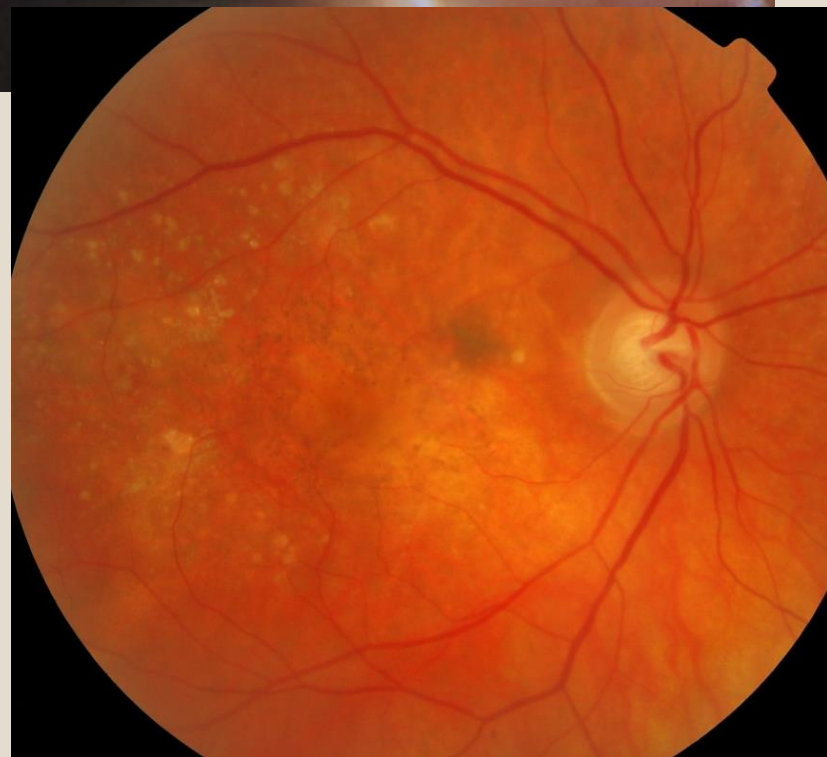
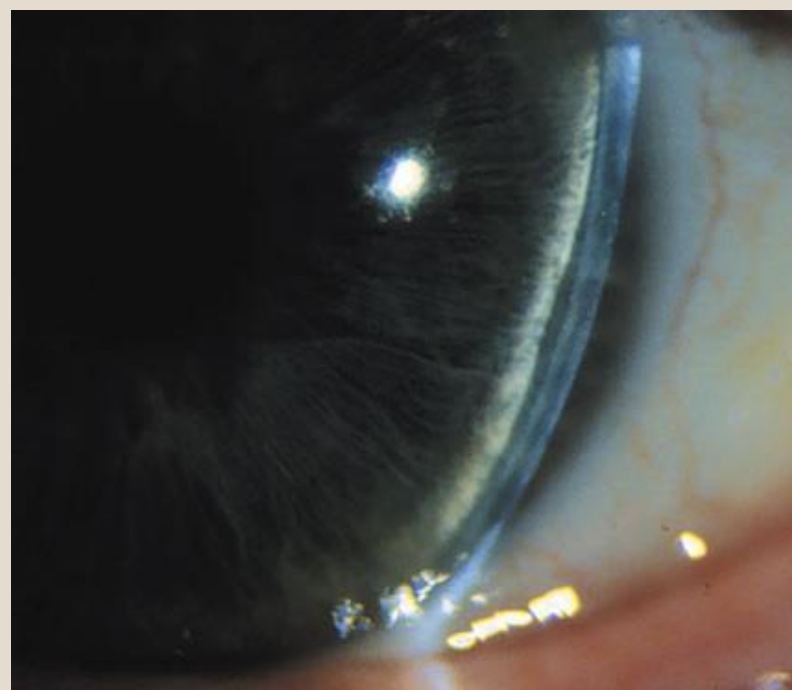
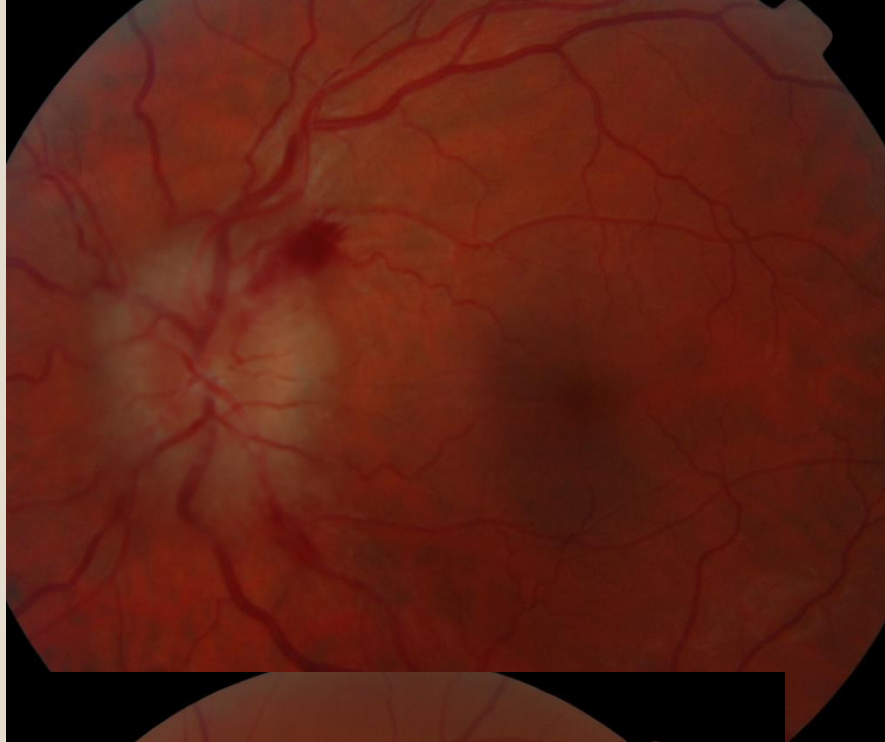
- Optometrists to identify and support patients at risk of falls

(Focus on Falls, College of Optometrists, 2014)

Suffolk Optometrists  
here to serve  
patients of all ages

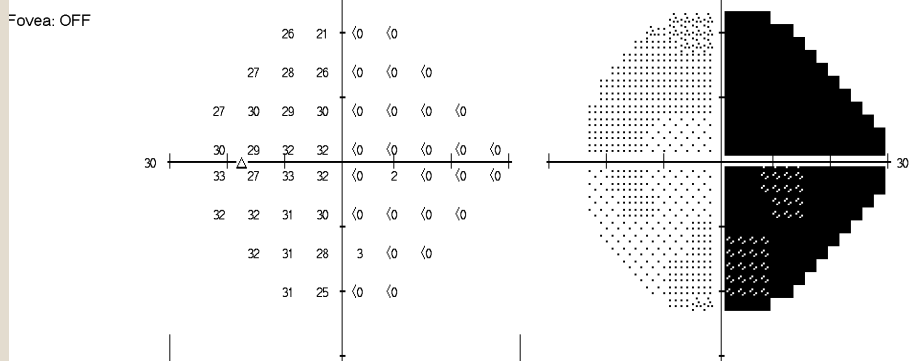






Central 24-2 Threshold Test

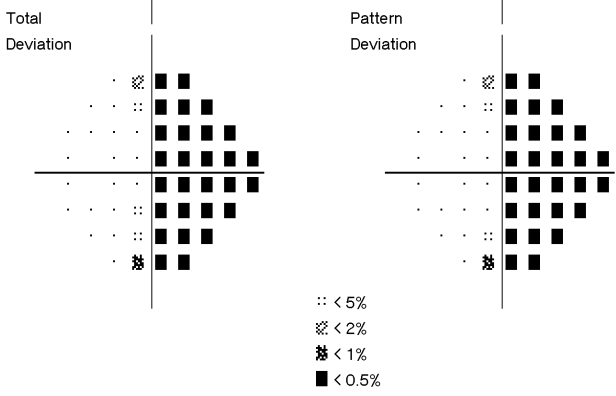
Fixation Monitor: Blind Spot      Stimulus: III, White      Pupil Diameter:      Date: 09-10-2008  
 Fixation Target: Central          Background: 31.5 ASB      Visual Acuity:      Time: 15:44  
 Fixation Losses: 11/12 xx      Strategy: SITA-Fast      RX: DS DC X      Age: 55  
 False POS Errors: 1 %  
 False NEG Errors: 0 %  
 Test Duration: 03:56



-1	-6	-29	-30				
-2	-1	-3	-32	-32	-31		
-3	0	-2	-1	-34	-33	-33	-31
0	1	0	-35	-34	-34	-32	-30
2	1	0	-35	-31	-34	-32	-30
2	1	0	-3	-35	-34	-33	-32
1	0	-3	-28	-33	-32		
1	-5	-32	-31				

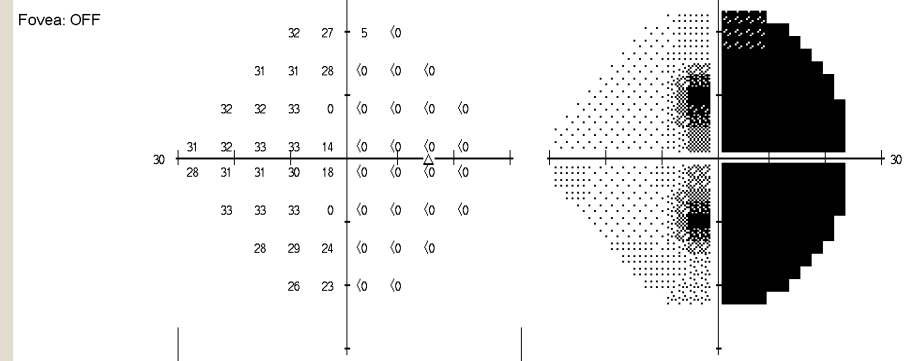
-1	-7	-30	-30				
-2	-1	-4	-32	-32	-31		
-3	0	-2	-1	-34	-34	-33	-31
0	0	0	-35	-35	-34	-32	-30
2	1	-1	-35	-31	-34	-32	-30
1	0	-1	-3	-35	-34	-33	-32
1	0	-3	-28	-33	-32		
0	-6	-32	-32				

\*\*\* Low Test Reliability \*\*\*  
 GHT  
 Outside normal limits  
 MD -19.72 dB P < 0.5%  
 PSD 16.39 dB P < 0.5%



Central 24-2 Threshold Test

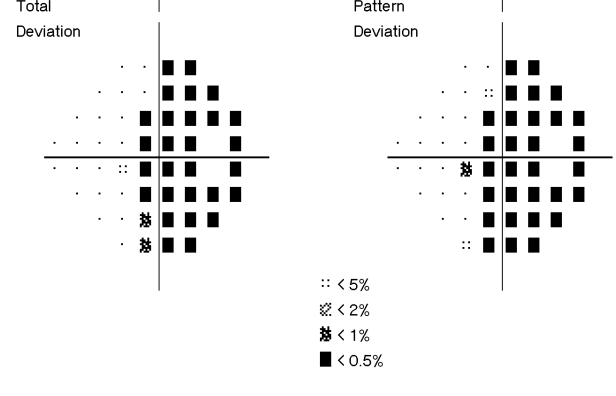
Fixation Monitor: Blind Spot      Stimulus: III, White      Pupil Diameter:      Date: 09-10-2008  
 Fixation Target: Central          Background: 31.5 ASB      Visual Acuity:      Time: 15:39  
 Fixation Losses: 0/12      Strategy: SITA-Fast      RX: DS DC X      Age: 55  
 False POS Errors: 0 %  
 False NEG Errors: 9 %  
 Test Duration: 04:03

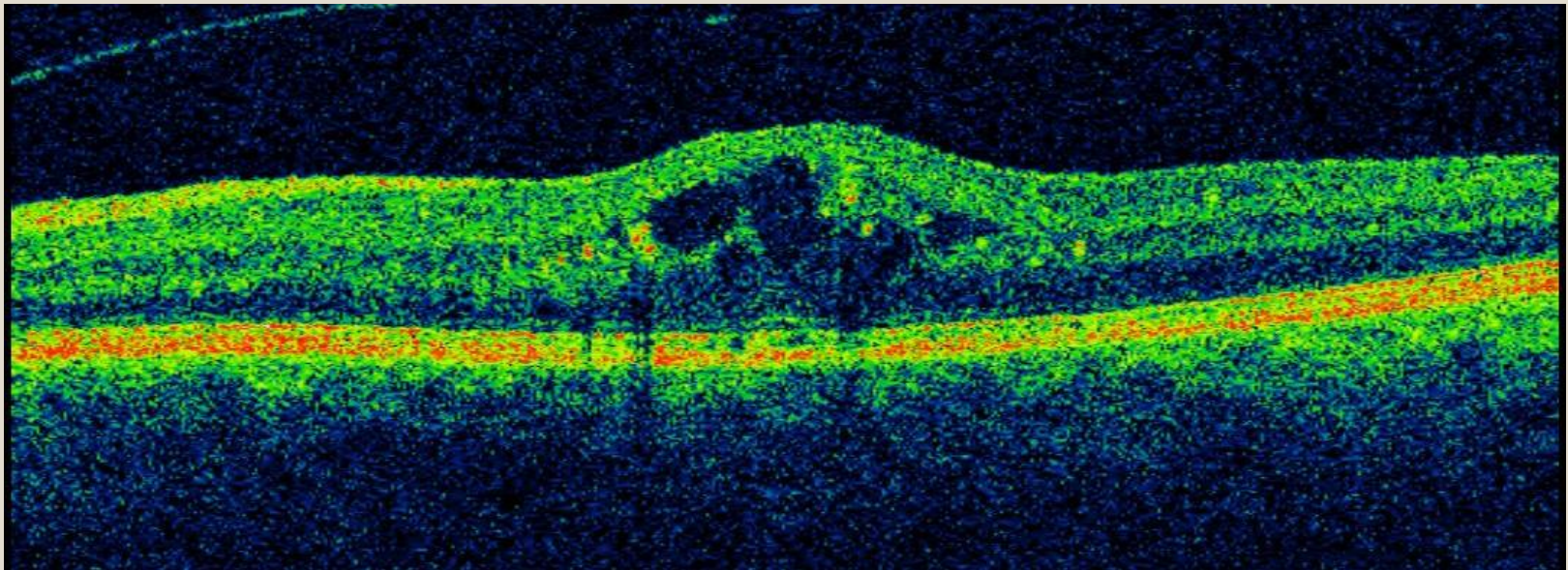
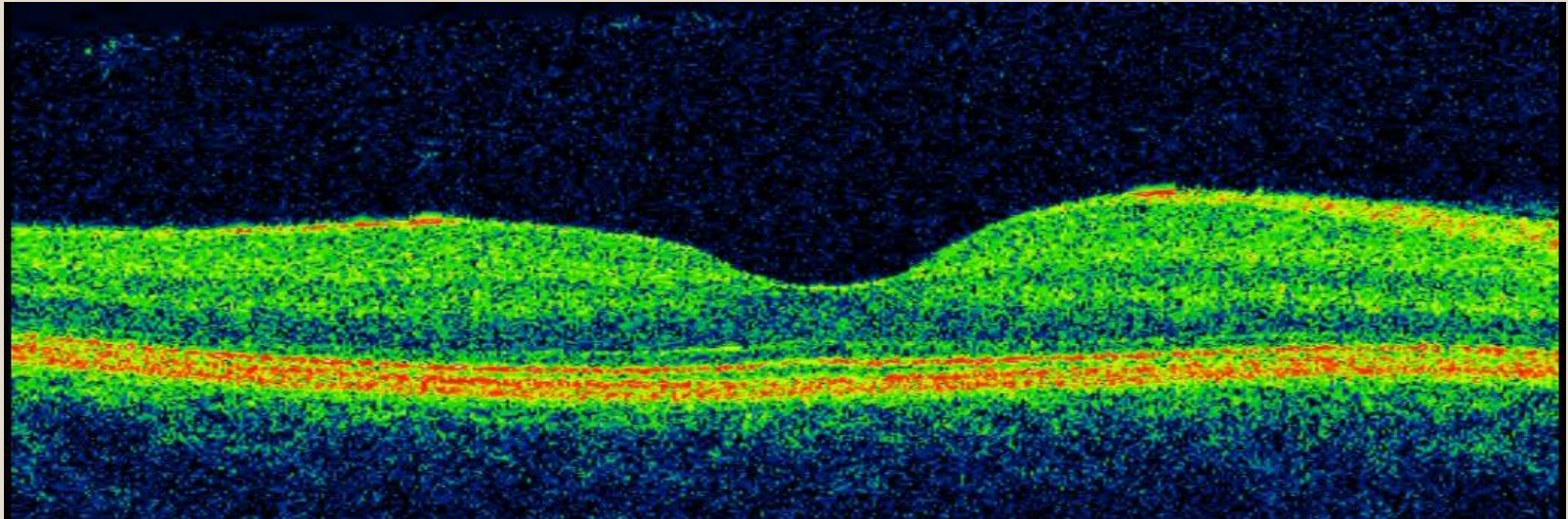


4	-1	-22	-29				
2	1	-2	-31	-31	-30		
3	1	1	-32	-33	-33	-32	-31
4	2	2	1	-19	-34	-34	-32
1	1	-1	-3	-15	-35	-34	-32
4	1	0	-33	-34	-34	-33	-32
-2	-2	-7	-33	-33	-33		
-3	-7	-32	-32				

3	-2	-23	-30				
0	-1	-3	-33	-33	-32		
1	0	0	-33	-35	-34	-34	-33
2	0	0	-1	-20	-36	-35	-34
-1	0	-3	-4	-17	-36	-36	-34
2	0	-1	-34	-36	-35	-35	-34
-3	-3	-9	-35	-35	-34		
-5	-8	-34	-34				

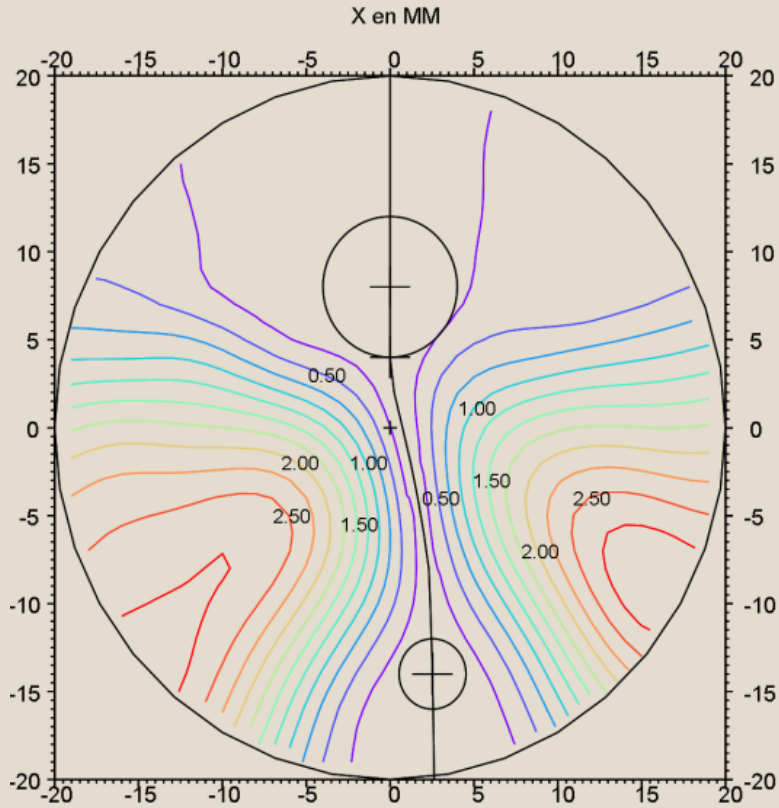
GHT  
 Outside normal limits  
 MD -15.52 dB P < 0.5%  
 PSD 16.75 dB P < 0.5%



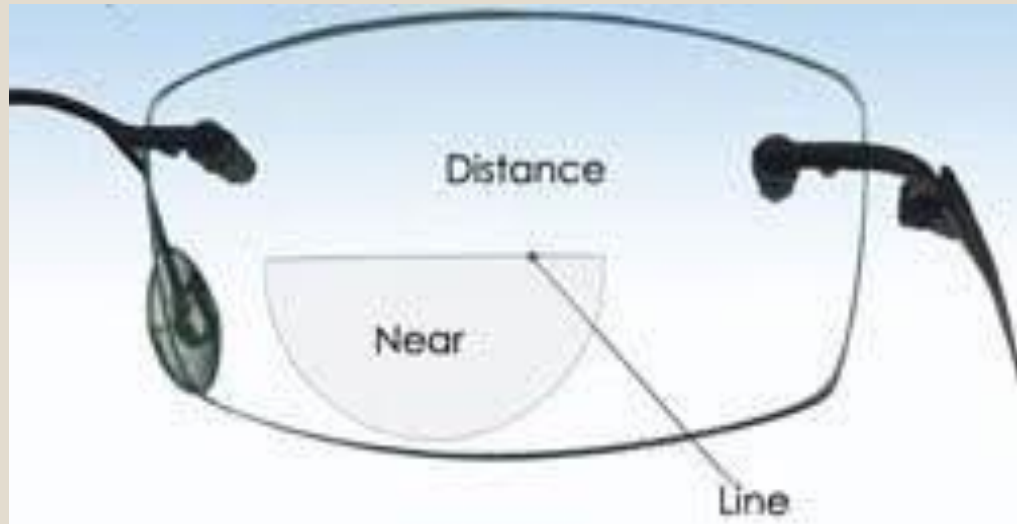




# Multifocal Lens design



Varifocal or Progressive



Bifocal

# Optical factors to reduce falls risk

- Correct significant ametropia
- Avoid change  $>0.75D$
- Remove specs when outdoors if minimal Rx
- B/F or Vari:
  - existing wearers not to wear outside if at risk of falls but still active,
  - avoid new Vari or B/F dispensing to at risk patients,
  - advise additional S/V dist pair

(Elliott, The Ageing Eye, Optometry Tomorrow, 2017; Cumming et al, Improving vision to prevent falls in frail older people, J Am Geriatric Soc, 2007; Timmis et al, Use of single vision distance spectacles, Invest Ophth Vis Sci, 2010)

# Are multifocals a risk? Recent studies

- PhD “Provision of spectacle lens correction to elderly people at risk of falls”
- Hypothesis: habitual multifocal wearers might not be at > risk of falls and change to S/V spectacles might > risk
- much existing advice based on lab studies
- analysis of community-based cohort study = **multifocal wear did not increase falls risk**
- Only predictor of future falls was a past falls history

(Dr Anita Morrison-Fokken, Aston University PhD, 2017; British Geriatrics Society, Falls and Bones Postural Stability meeting, Leeds, Sept 2018)

# Are multifocals a risk? Recent studies

- Recent Swedish study also found no ass. between lens design and falls

(Kallstrand-Eriksson et al., Clin Ophth, July 2016)

- Only ass. found by Kallstrand-Eriksson = poor vision, as found by many authors

(eg Harwood, Visual problems and falls, Age Ageing 2001)

- Ask patients own optometrist about most appropriate specs to reduce risk of falls

# Why Optom Intervention?

- Falls prevention is effective
- exercise prog reduces risk of falls 15–22%  
(Falls and Fracture Consensus Statement, Public Health Eng., 2017)
- Appropriate correction and/or referral for treatment could reduce falls  
(Buckley & Elliott, Ophth Physiol Opt., 2006)
- Increased falls in optom intervention group!  
(Cumming et al, Improving vision to prevent falls in frail older people: randomized trial, J Am Geriatric Soc, 2007)
- Suffolk Optom Intervention Scheme  
(Dunstone, [Optometry Today](#) , August 2018, Volume 58:08 p75-78)

# Frailty &/or fall risk suspected

Suffolk Optom to consider:

1. all vision and spectacle factors associated with falls, incl. eye coordination, lighting, contrast, footwear, rugs & mats (Focus on Falls, College Optometrists, 2014)
2. Referral to eye clinic (eg cataract, glaucoma, AMD) or GMP (ocular signs of GH problem eg BP, DM, hypercholesterolemia, vestibular or neurological problems) and/or
3. Frailty referral

# Consideration for frailty referral

- **Frailty suspected** eg evident slowing, medical problems, inactivity, vulnerability
- **Gait speed:** > 5 secs to walk 4m (using usual aids)
- **Timed up-and-go test (TUGT):** > 10 secs to get up from chair, walk 3m, turn round & sit down
- **Prisma 7 questions:** if gait slow
- **Ascertain meds;** Polypharmacy?
- **Previous falls** or history of falls assessment?

# Suffolk Optom Referral of frail Px at risk of fall

- Community Exercise Class (eg ActivLives)
- Suffolk Healthcare Community, Care Coordination
- GMP
- Customer First, Suffolk County Council Social Care Services



# Charles Bonnett Syndrome

- Complex visual hallucinations
- Affects sight....can't hear, smell or feel images
- 10 – 30% with vision deficit (Schultz et al 1991)
- Differential diagnosis includes
  - brainstem or thalamus lesion
  - Parkinson's
  - dementia
  - Schizophrenia
  - Epilepsy
  - stroke

# How you can help with eye care

- Check patient wearing appropriate/own specs
- Recommend optometric "Sight Test"
- Domiciliary visits available
- NHS eligibility for >60yrs etc.

• [lookafteryoureyes.org/eye-care/ageing-eyes-and-falls/](http://lookafteryoureyes.org/eye-care/ageing-eyes-and-falls/)

- College leaflet
- Vision assessment tool for falls prevention

(RC Physicians, Bedside vision check for falls prevention, 2017)



# Summary

“There are multiple interventions that can reduce frailty and limit falls risk.....”

....and Suffolk LOC & local Optometrists can help

For full details of frailty referral scheme, references, useful contacts, pathway diagram, referral forms or questions contact: [suffolkloc.org.uk](http://suffolkloc.org.uk) or [derek@dunstoneinsight.com](mailto:derek@dunstoneinsight.com)

# Acknowledgements

- Lindsay Bennett & Julie Stokes, ActivLives
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- Dr Jane Shoote, Consultant Physician, Ipswich Hospital
- Dr Samuel Blows, Consultant in Elderly Medicine and General Internal Medicine, Ipswich Hospital
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- Suffolk Local Optometric Committee