Financial Disclosure

- I have the following financial interests or relationships to disclose:
  - Abbott Medical Optics: C;
  - AcuFocus, Inc.: C,O;
  - Alcon Laboratories, Inc.: C;
  - ArcScan: C,O;
  - Calhoun Vision: C,O;
  - Carl Zeiss Inc: C;
  - Elenza: C,O;
  - Oculus, Inc.: C;
  - Visiometrics: C,O;

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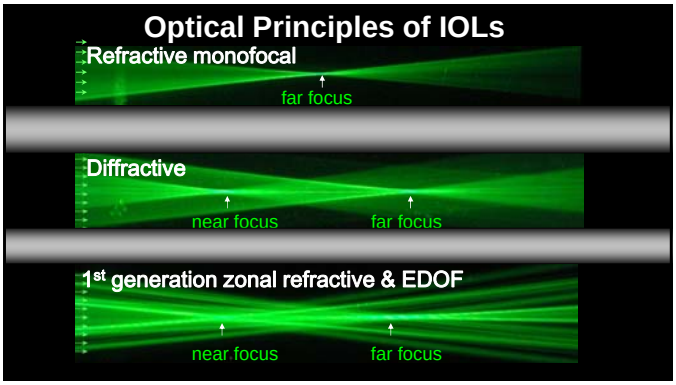
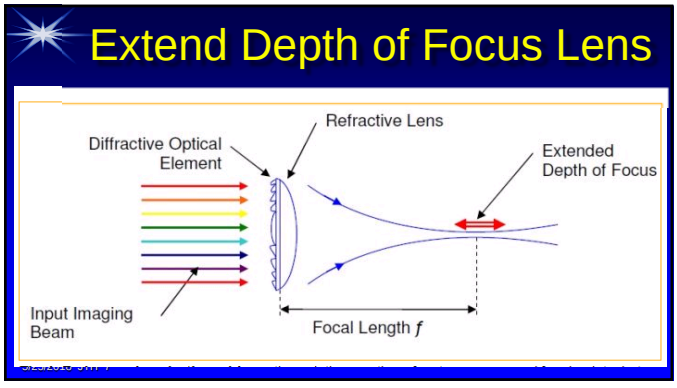
Distance Definitions

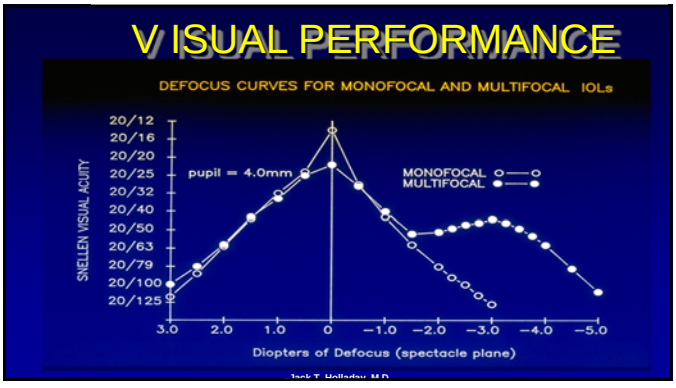
	Add (D) Spectacles	Metric	English
Far	0	6 m	20 ft
Intermediate	1.50	66 cm	26 inches
Near	2.50	40 cm	16 inches

Micro Monovision = plano & -0.50 D
Mini Monovision = plano & -1.25 D
Monovision = plano & ">" -1.50 D

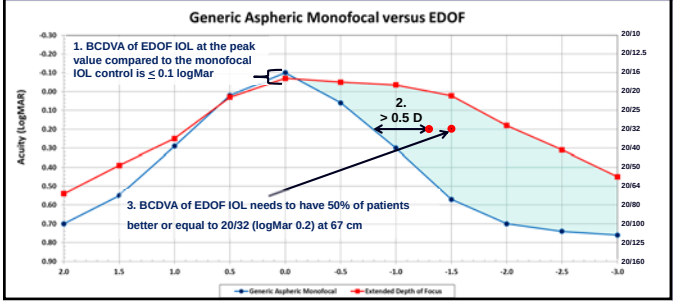
–10/24/97 –Jack T. Holladay, M.D.







Extend Depth of Focus Lens

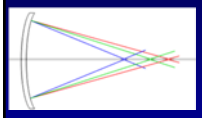
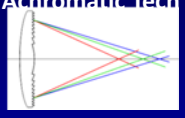
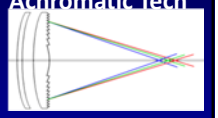


IOL Optical Comparsion

IOL Type	Theoretical BSCVA	Actual BSCVA	Contrast Loss	Halos & Glare	Forward Light Scatter
Aspherical Mono	20/09	20/17	0%	-	0%
Spherical Mono	20/12	20/20	10%	+	0%
EDF 1.50 D (1.00)	20/16	20/18	20%	+	10%
Diffractive Multi 3.00 D (2.00)	20/20	20/22	25%	++	18%
Diffractive Multi 4.00 D (2.75)	20/20	20/22	30%	+++	18%

LA Dodgers 1993-1995: 1.7% from 20/8.9 to 20/9.2
42% ≤ 20/12.5 AJO 1996; Oct 122 (4): 476-85.

CORRECTION OF CHROMATIC ABERRATION

Cornea	Lens with Achromatic Tech	Cornea+ Lens with Achromatic Tech
		
All corneas have a similar amount of chromatic aberration	Proprietary Achromatic Technology is optimized to counteract the chromatic aberration of the cornea	The net result is reduced chromatic aberration

Duo Chrome Test

Hyperopic Myopic

N C K Z O

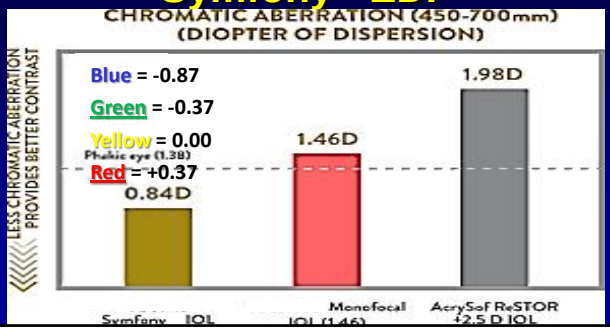
R H S D K

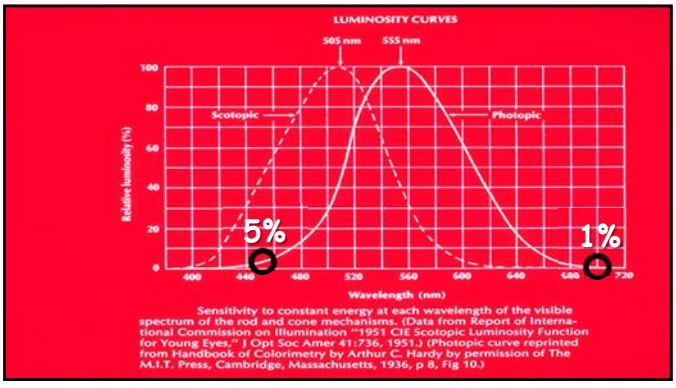
D O V H R

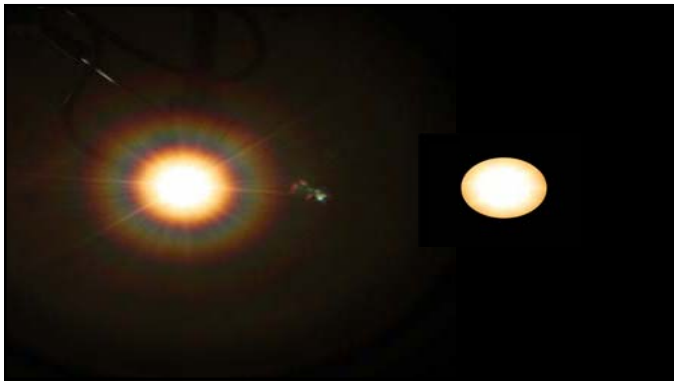
C Z R H S

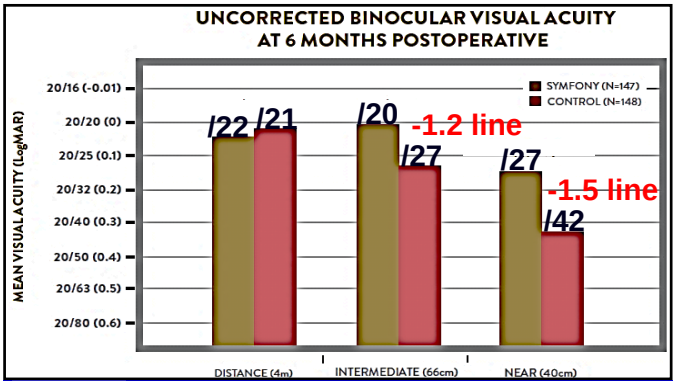
O N H R C

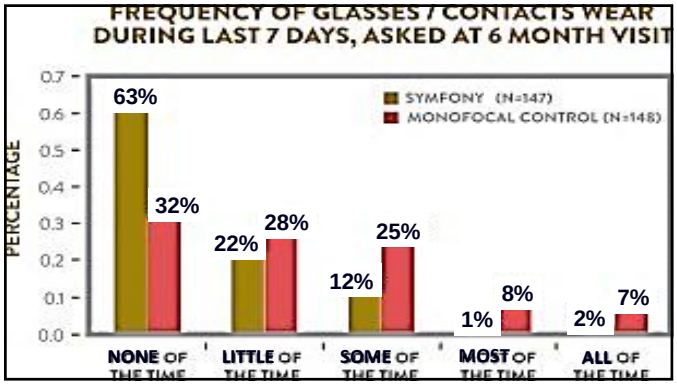
Symfony - EDF



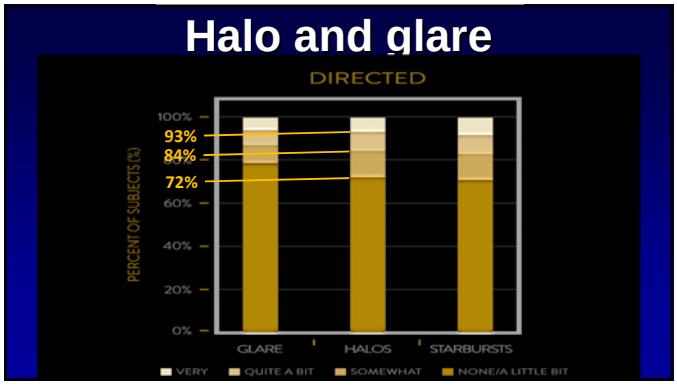





UNCORRECTED BINOCULAR VISUAL ACUITY
AT 6 MONTHS POSTOPERATIVE
MEAN VISUAL ACUITY (LogMAR)
20/16 (-0.01)
20/20 (0)
20/25 (0.1)
20/32 (0.2)
20/40 (0.3)
20/50 (0.4)
20/63 (0.5)
20/80 (0.6)
SYMFONY (N=147)
CONTROL (N=148)
/22
/21
/20
-1.2 line
/27
/27
-1.5 line
/42
DISTANCE (4m)
INTERMEDIATE (66cm)
NEAR (40cm)


FREQUENCY OF GLASSES / CONTACTS WEAR
DURING LAST 7 DAYS, ASKED AT 6 MONTH VISIT
PERCENTAGE
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
SYMFONY (N=147)
MONOFOCAL CONTROL (N=148)
63%
32%
22%
28%
12%
25%
1%
8%
2%
7%
NONE OF THE TIME
LITTLE OF THE TIME
SOME OF THE TIME
MOST OF THE TIME
ALL OF THE TIME

Diff Multi


Halo and glare
DIRECTED
PERCENT OF SUBJECTS (%)
100%
60%
40%
20%
0%
93%
84%
72%
GLARE
HALOS
STARBURSTS
VERY
QUITE A BIT
SOMEWHAT
NONE/A LITTLE BIT

"Spider Web" – 9 Rings
Argentina
Ophthalmologist

EDF IOL Conclusions

- High Contrast BSCVA & CSF will be close to aspheric monofocal IOL
- CSF will be slightly less but not clinically significant (< 2 dB or 0.2 log)
- Intermediate: BSCVA 2.4 lines better
  UCVA 1.2 lines better
- Near: BSCVA 2.2 lines better
  UCVA 1.5 lines better
- Halos: 72% none, 12% some,
  9% quite a bit, 7% very
- No Glasses: 63% versus 32% (1/3 more)

Presby Rx	Dom Eye DVA	Non-Dom Eye DVA	Binoc DVA	Dom Eye NVA	Non-Dom Eye NVA	Binoc NVA	3D	CSF	Halo	Glare
Binocular Distance	20/20	20/20	**20/16**	20/40	20/40	**20/30**	9	+40% +2dB	--	--
Traditional Mono	20/20	20/40	**20/20**	20/40	20/25	**20/25**	6	0%	--	--
Extended DOF	20/20	20/20	**20/20**	20/25	20/25	**20/25**	9	-21% -1dB	**1+**	11%
Multifocal 3 D Add	20/20	20/20	**20/20**	20/20	20/20	**20/20**	8	-37% -2dB	**2+**	18%
Multifocal 4 D Add	20/20	20/20	**20/20**	20/20	20/20	**20/20**	8	-37% -2dB	**3+**	18%