


**CL Selection and Patient Education**  
 NCLE Level II - 1 hour



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**On behalf of Vision Expo, we sincerely thank you for being with us this year.**

**Vision Expo Has Gone Green!**

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.



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**Financial Disclosure Statement**

**Andrew Bruce provides consulting services for . . .**

- VSP Optics/UUniversity
- Mitsui Chemicals
- Optical Training Institute

- All relevant relationships have been mitigated
- He has NO financial interest in any product presented in this course.

3

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## OBJECTIVES

**At the conclusion of this session, the participant should be able to:**

- Discuss the pros and cons of the broad range of contact lens types and modalities available to today's contact lens patients
- Understand the factors to be considered when making lens selection and recommendations
- Communicate the importance of ensuring that every patient is well informed and educated, to be a successful contact lens wearer.

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## GETTING STARTED

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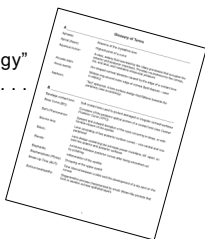
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## BASIC TERMINOLOGY

Download  
 "Contact Lens Terminology"  
 from *Event Handouts* at . . .  
[www.asbopticianry.com](http://www.asbopticianry.com)




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6

### DOCTOR'S "OK FOR CONTACTS"

Dr. Terry Youngman  
3403 E. McDowell  
Phoenix, AZ 85008  
(602) 225-9090

PATIENT: Connie Tactlens DATE: 2/29/23

	SPHERICAL	CYLINDRICAL	AXIS	PRISM	BASE
R	-2.00	SPH			
L	-2.00	SPH			
OS					
OA					

OK for Contacts  
Terry Youngman, O.D.

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### CHOICES, CHOICES!

**Soft or Hard? Factors to Consider:**

- Rx
- Patient expectations
- Ocular & medical history
- Previous contact lens experience
- Palpebral fissure size.



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### WHY FIT A RIGID LENS AND NOT A SOFT?



- Excellent optics
- Totally customizable to facilitate great precision
- Rigid properties mask corneal irregularities
- Allow precise management of an astigmatic cornea
- Provide dry eye relief.

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## WHY FIT A SOFT LENS AND NOT A RIGID?

- Easy patient fitting and adaptation
- Patient friendly
- Multiple modalities available
- Easy maintenance
- Any others . . .



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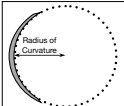
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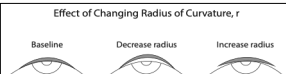
## BASE CURVE SELECTION



- Rigid lens, fit on K, FTK, STK
- Soft contacts, select BC as close as possible to flat K

Keratometry Values	Soft Lens Base Curve <small>(Based on a 14.0 DIA)</small>
< 42.00D	8.8 to 9.0
42.00D to 45.00D	8.6 / 8.7
> 45.00D	8.2 to 8.4

Effect of Changing Radius of Curvature, r



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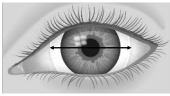
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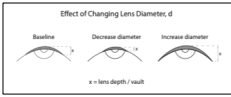
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## LENS DIAMETER SELECTION



- **HVID:** Horizontal Visible Iris Diameter used to determine lens diameter
- Rigid lens avg. 9.2mm
- Soft lens diameter = HVID + 2mm

Effect of Changing Lens Diameter, d



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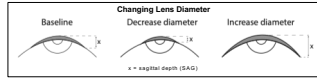
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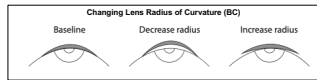
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# CHANGING OAD / BC



- Decreasing diameter loosens the fit
- Increasing diameter tightens the fit



- Decreasing radius of curvature tightens the fit
- Increasing radius of curvature loosens the fit.

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# MATERIAL SELECTION

RIGID AND SOFT

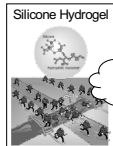
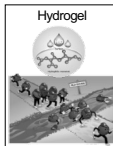
Influences Dk/t, wettability, and Deposit Accumulation

### RIGID

- Broad variety of options
- Fluorosilicone Acrylate (FSA) = Gold Standard

### SOFT

- Hydrogel (HEMA)
- Silicone Hydrogel (SiHy)



Another path for Oxygen

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# SOFT LENS MODALITIES



- Dailies
- Weekly
- Bi-weekly
- Monthly
- Bi-monthly
- Extended Wear.

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## MODALITY SELECTION PROCESS



- Lifestyle
- Vocation
- Hobbies
- Medical / ocular history
- Motivation
- Likelihood for compliance.

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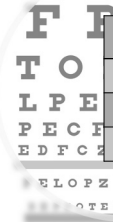
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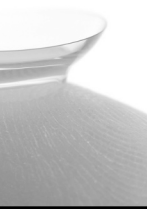
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16

## SPHERICAL OR TORIC SOFT LENS?



CYLINDER POWER	SPHERICAL OR TORIC
< 0.75D	Spherical Equivalent
> 0.75D	Toric
= 0.75D	Spherical Equivalent / Toric




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## SPHERE EQUIVALENT POWER

Sphere Equivalent, SE = 1/2 cylinder + Sphere

**Example**

Rx: +5.00 -2.00 x 180

SE = (1/2 x -2.00) + (+5.00)

SE = **+4.00D**

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## VERTEX DISTANCE AND EFFECTIVE POWER

$$\text{Effective Power Formula} = \frac{\text{Original Power}}{1 + (\text{change in VD (m)} \times \text{Original Power})}$$

**Q:** Calculate contact lens power for +5.00DS refracted at a VD of 12mm

**USING FORMULA**

Effective power at a corneal plane =  $+5.00 / 1 + (+0.012 \times +5) = \mathbf{+4.71D}$

*(CONFIRM: Lens moved closer so effective power should be less "plus")*

What CL Power should be used? **+5.25D**

**IMPORTANT**

If VD increases, change is negative "-". If VD decreases, change is positive "+".

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## LENS SELECTION FOR THE PRESBYOPIC PATIENT

- Material/modulus
- Single vision with readers
- Multi-focal
- Monovision.




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## PREPARE THE PATIENT FOR SUCCESS

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### PATIENT EDUCATION

- Explain the entire process
- Time commitment with complex designs
- Insertion and removal (I&R).




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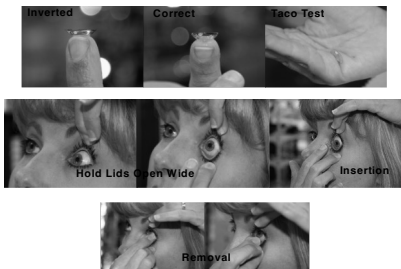
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### INSERTION AND REMOVAL SOFT LENSES




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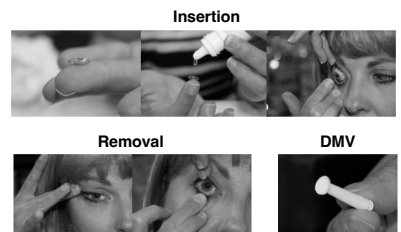
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### INSERTION AND REMOVAL GP LENSES




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### CARE AND MAINTENANCE

- Initial cleaning
- Disinfect and condition overnight
- Rinse off with fresh solution
- Dump out old solution




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### LENS CARE SOLUTIONS

NOT ALL ARE CREATED EQUAL




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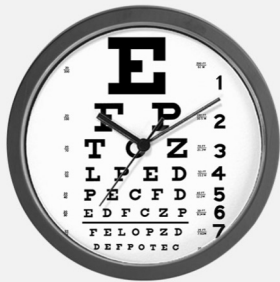
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### WEARING SCHEDULE

- Initial wear schedule
- *Maximum* wear time.




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**DOS AND DON'TS**



**Do...**

- Sterilize case every week
- Replace case every 3 months
- Replace lenses as recommended
- Only use recommended care solutions
- Return to the office or call with any concerns or questions.

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**DOS AND DON'TS**



**Do Not . . .**

- Sleep in non-FDA approved contacts
- Swim in contacts
- Hot tub in contacts
- Shower in contacts
- Use saliva to clean
- Wear for longer than recommended.

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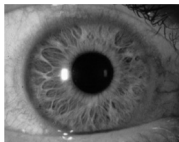
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**EDUCATE PATIENTS**  
KEEP AN EYE OPEN FOR . . .



- Eye pain/ache
- Redness
- Discharge
- Irregularities in vision.

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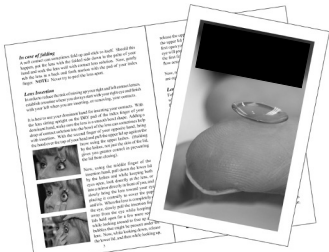
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### GO THE EXTRA MILE



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### IMPORTANCE OF PREMIUM QUALITY SUNGLASSES



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### IMPORTANCE OF ONGOING PROFESSIONAL EYE CARE



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**TO TAKE AWAY . . .**

- Contact lenses can expand your patient’s world
- Discover their lifestyle needs to determine the most appropriate product to recommend
- Prepare them for success and a healthy contact lens wearing life – especially with pediatrics
- Make a difference and be proud!

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**Andrew S. Bruce**

**Thank You!**

**Speaker Contact Information**  
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 Follow me on Instagram @asbopticianry

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