

#### STATE BOARD OF OPTOMETRY

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Continuing Education Course Approval Checklist

Title:

Provider Name:

✓ Completed Application
 Open to all Optometrists?
 ✓ Yes
 ✓ No
 Maintain Record Agreement?
 ✓ Yes
 ✓ No

Correct Application Fee

☑ Detailed Course Summary

Detailed Course Outline

PowerPoint and/or other Presentation Materials

□Advertising (optional)

CV for EACH Course Instructor

☑License Verification for Each Course Instructor Disciplinary History? □Yes ☑No

BUSINESS, CONSUMER SERVICES, A		GOVERNOR	EDMUND G. BROWN JR.
OptometrY	STATE BOARD OF OPTOM 2450 DEL PASO ROAD, SU P (916) 575-7170 F (916) 5	<b>π⊑⊺RY</b> ITE 105, SACRAMENTO, CA 95834 75-7292 <u>www.optometry.ca.gov</u>	
COI	TINUING EDUCATI	ON COURSE APPROVAL	
\$50 Mandatory Fee		CATION 1-1378/930802,	1930802/s
Pursuant to California Code of receiving the applicable fee, th specified in CCR § 1536(g).	Regulations (CCR) § <u>1536</u> , the requested information below	ne Board will approve continuing educat v and it has been determined that the co	ion (CE) courses a ourse meets criteria
n addition to the information representation materials (e.g., Popesentation date.	equested below, please attach owerPoint presentation). Appl	a copy of the course schedule, a detail lications must be submitted 45 days prio	ed course outline a or to the course
Course Title	··· ·	Course Presentation Date	
Raindrop, Nea	- Vision Inlay.	11/16/20	
TREATS SALVERY	Course Provider (	Contact Information	- <u></u>
Provider Name		<b>`</b>	
V. Nicholas	<u> </u>	atra	-11 - 1
Provider Mailing Address	(	Last) (Mid	ale)
Provider Email Address	edyrabatravisi	on · com	_
Will the proposed course be	open to all California licens	ed optometrists?	Yes □ N
Do you agree to maintain an of course content and attend from the date of course pres	d furnish to the Board and/o lance as the Board requires entation?	r attending licensee such records , for a period of at least three years	YZYES DNG
Please provide the information f there are more instructors in nstructor Name	Course Instruct below and attach the curricult the course, please provide the	c <b>tor Information</b> um vitae for <u>each</u> instructor or lecturer ir e requested information on a separate s	nvolved in the cour heet of paper.
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Phone Number $(50)$	6-1212	Email Address drbatra@batr	avision.com
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Board of Optometry

To whom it might concern,

We apologized for not being able to submit all the required documents at least 45 days prior to our event. We had issues with the location and had to make sure everything was resolved before we submitted our request.

We will make sure we submit all documents on time for our next seminar.

Thank you for your time.

Hedy Rodriguez

Batra Vision Medical Group

As you age, your ability to see up close slowly declines. Most people over 40 experience age-related loss of near vision. When you can't read the texts on your phone or fine print in general, you turn to your readers.

Raindrop is a small, transparent disc called an inlay. It's made of ~80% water and from similar material to a soft contact lens. The size of a pinhead and half the thickness of a human hair.

Raindrop improves your near and intermediate vision quickly and simply. It is designed to reduce your need for reader, and patients typically see results in 1 week.

The Raindrop Near Vision Inlay is placed just below the surface of the eye during a 10-minute procedure. Raindrop is intended to be a long-term solution for near vision improvement. If for any reason you need it taken out, it can be easily removed by your doctor.

Raindrop allows you to resume normal activities such as driving and reading the very next day. Your doctor will prescribe simple follow-up care.

Eye shield to wear at night. Medications to minimize the risk of inflammation, infection, and dry eye. Follow-up appointments.

On average, patients improved approximately 5 lines of near vision on an eye chart without readers within 1 week. Two years after receiving Raindrop, most patients were able to see everyday things again without readers. The TECNIS Symfony Extended Range of Vision IOLs have the same materials and overall design as the TECNIS Multifocal 1-piece IOLs. The TECNIS Symfony Extended Range of Vision IOLs give you a continuous range of clear vision at far and intermediate. The IOLs also provide improved near vision compared to a monofocal lens. For small print, you are likely to need reading glasses. Mutifocal IOLs give you good vision at distinct far and near points. You may notice halos, glare starburst, glare and other visual symptoms.

There are five different TECNIS Symfony Extended Range of Vision IOLs. All models give similar distance and better intermediate and near vision, compared to a monofocal lens. The toric models also correct different amounts of astigmatism. It is important to choose the lens that is appropriate for your needs and your lifestyle.

#### RAINDROP NEAR VISION INLAY

\*Physiologically transparent, biocompatible hydrogel corneal inlay
\*Size: 2 mm diameter, 30 microns thickness
\*Similar water content and refractive index as the cornea
\*Implanted under a femtosecond laser corneal flap and centered over light-constricted pupil
\*Placed in the non-dominant eye
\*Removable, if needed

#### HOW DOES IT WORK

\*Gently reshapes the cornea to create a near center that transitions to intermediate then distance

#### WHO IS THE IDEAL PATIENT

\*Presbyope

41 to 65 years of age

MRSE of +1.00 D to -0.50 D

Do not require correction for clear distance vision

Require +1.50 to +2.50 D reading add for near vision

\*Healthy ocular surface\*Normal corneal/anterior segment\*Easy-going personality

#### **COMPREHENSIVE EYE EXAM**

\*Screening for Dry Eye Syndrome \*Contact Lens Trial Evaluation \*Additional Measurements

#### **POSTOP CARE**

\*Postop Testing\*Postop Drop Instructions\*Postop Follow Up Schedule

#### **TECNIS SYMFONY & TECNIS SYMPONY TORIC IOLs**

\*The first and only Extended Depth and Focus (EDOF) Presbyopia Correcting IOL for patients with and without Astigmatism

#### **PROPRIETARY TECHNOLOGY**

\*Proprietary Echelette Design

Extends the depth of focus

\*Proprietary Achromatic Technology

Corrects chromatic aberration for enhanced image contrast.

#### SHARPEST VISION

\*Continuous vision

\*Excellent vision at all distances

\*Chromatic Aberration Correction

\*Contrast Sensitivity

#### **ENHANCED FUNCTIONALITY**

\*Tolerance to Astigmatism

Delivers 20/20 vision even in the presence of astigmatism

\*Tolerance to Decentration

Maintains image quality throughout 0.75 mm of decentration

\*Low Incidence of Halo and Glare

Less than 3% of patients spontaneously reported incidence of severe night vision symptoms

\*Pupil independent Lens Performance

Pupil independence enables optimal performance in all lighting conditions

\*Low Spectacle wear

85% of TECNIS Symfony IOL patients wore glasses none or a little bit of the time

# RAR VISION INLAY

**Optometric Education** 

#### Agenda

- Raindrop Near Vision Inlay
- Mechanism of Action
- Patient Selection
- Comprehensive Exam
- Raindrop Procedure
- Postop Co-Management
  - Results
  - Complications
- When to Refer Back
- References

# Raindrop<sup>®</sup> Near Vision Inlay





- Physiologically transparent, biocompatible hydrogel corneal inlay
- Size: 2 mm diameter, 30 microns thickness
- Similar water content and refractive index as the cornea
- Implanted under a femtosecond laser corneal flap (30% of the corneal thickness) and centered over light-constricted pupil
- Placed in the non-dominant eye
- Removable, if needed

# How Does It Work?



Gently reshapes the cornea to create a near center that transitions to intermediate\* then distance

\*Intermediate vision was measured in the pivotal trial, but was not a study endpoint.

# **Topography of Profocal Cornea**



# After Raindrop



#### **Pre-Op Non-dominant Eye**

#### **3 Months Postop**



### Sequence of Events

- Identify potential Raindrop patient
- Comprehensive Eye Exam
  - Dry eye assessment
  - Contact lens trial evaluation
  - Topography
  - Cycloplegic refraction
- Refer to Raindrop-trained surgeon
- Raindrop procedure
- Co-manage recommended postop care



# Identify Raindrop Patient



The Raindrop Near Vision Inlay is indicated for intrastromal implantation to improve near vision in the non-dominant eye of phakic, presbyopic patients, 41 to 65 years of age, who have manifest refractive spherical equivalent (MRSE) of +1.00 diopters (D) to -0.50 D with less than or equal to 0.75 D of refractive cylinder, who do not require correction for clear distance vision, but who do require near correction of +1.50 D to +2.50 D of reading add.

### Who is the Ideal Raindrop Patient?

#### Presbyope

- 41 to 65 years of age
- MRSE of +1.00 D to -0.50 D with < 0.75 D of refractive cylinder</li>
- Do not require correction for clear distance vision
- Require +1.50 to +2.50 D reading add for near vision
- Healthy ocular surface
- Normal cornea/anterior segment
- Easy-going personality



- Raindrop Patient Should Not Have...
  - Abnormal corneal topography of eye to be implanted
  - have a corneal thickness that does not allow for a minimum of 300 microns of stromal bed thickness below the flap;
  - Active eye infection or inflammation
  - Dry eye syndrome
  - Moderate to severe MGD
  - Keratoconus or keratoconus suspect
  - Corneal dystrophy or degeneration
  - History of herpetic eye infection
  - Uncontrolled diabetes
  - Glaucoma, including history of IOP rise due to steroids
  - Previous eye surgery, including LASIK, PRK, cataracts
  - Any sight-threatening or sight-compromising condition

# Comprehensive Eye Exam



# Screening for Dry Eye Syndrome (DES)

- DES can lead to the following postop complications
  - Poor visual outcomes due to unstable ocular surface
  - Higher risk for postop inflammation or haze
  - Prolonged postop discomfort and healing



## Dry Eye Testing: Reference Table

Tests	Good Candidate	Not Ideal
TBUT	≥8 secs	< 8 secs
Schirmer's	≥ 10 mm	< 10 mm
Tear Osmolarity	< 316 mOsm	≥ 316 mOsm
Corneal Staining	none to mild	mild or worse
LipiView	Complete blinks with smooth oily tear layer ICU ≥ 75 nm	< 75 nm

# **Contact Lens Trial Evaluation**

#### Purpose

- Tolerance to neuro-adaptation
- Reaction to transient mild ocular discomfort
- Personality assessment
- Method
  - Place multifocal soft CL in plano power with high add in nondominant eye only
  - Allow patient to evaluate vision for up to 5 days
- Results
  - Good Results
    - Subjectively sees well distance and near
  - Poor Results
    - Complains of blurry binocular vision at all distances
    - Constantly compares dominant and non-dominant eyes
    - Extreme aversion to CL in eye may indicate poor compliance in using postop drops

# **Additional Measurements**

- Cyclopegic refraction
- Topography
- OCT, if available
- Pachymetry (≥ 500 µm)
- Pupil size
  - Photopic > 3 mm
  - Mesopic < 7 mm</li>



# **Raindrop Procedure**

# RAINDROP SURGERY

VIDEO COURTESY OF DR. JEFFREY WHITMAN

# Co-Managed Postop Care



# **Postop Testing**

- Visual Acuities:
  - UDVA, UNVA, BCVA
- Manifest Refraction (avoid auto-refraction)
- Topography, Wavefront, anterior segment OCT
- Slit Lamp Exam + Photo

# **Postop Drop Instructions**

- 1W antibiotics (moxifloxacin) QID
- 1M of Strong Steroid taper (difluprednate)
  - 1st week: QID
  - 2nd week: TID
  - 3rd week: BID
  - 4th week: QD
- 2 additional months of Mild Steroid (loteprednol)
  - 2nd month: BID
  - 3rd month: QD
- Preservative-free artificial tears daily

### Postop Follow Up Schedule

- Day One
- One Week
- One Month
- Six Months
- One Year
- Every Six Months after First Year



# HealthLoop: Patient Engagement Tool

- Practice branded patient engagement tool that guides patients through their preop and postop care plan
  - Automatically checks in with patients daily
  - Automatic routine education and guidance
  - Anticipated routine questions to reduce phone calls



### **Expected Outcomes**

#### 1 Day

- Blurry UDVA, UNVA focused close ~20 cm
- 1 Month to 3 Months
  - UDVA improvement, UNVA focused more comfortably
  - Stability of inlay centration

#### 6 Month and Beyond

- Stability of refraction
- Stability of topography
- Stability of K-readings
- Neuro-adaptation for most patients



#### Simple Results: Lines Achieved<sup>1</sup>



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#### Simple Results: Raindrop Eye (Monocular)<sup>1</sup>



#### Simple Results: Binocular<sup>1</sup>



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Adverse Events		Complications		
Ocular Infection	1 (0.7%)	Peripheral corneal defect at 1 month or later	1 (0.7%)	
Lost, misaligned, misplaced flap	1 (0.7%)	Corneal edema between 1 week and 1 month after surgery	3 (2.2%)	
Increased IOP	2 (1.5%)	Control cornool bazo	12 (9 00/)	
DLK	1 (0.7%)		12 (0.970)	
		Foreign body sensation at 1 month or later	1 (0.7%)	
Inlay Exchange	5 (3.7%)	Pain at 1 month or later	1 (0.7%)	
Inlays Removal**	5 (3.7%)	Severe dry eye beyond 6 months after surgery	1 (0.7%)	
Iritis	1 (0.7%)	Herpes zoster	1 (0.7%)	

In the complete cohort (N = 373), 17% (62/373) had incidence of central corneal haze and 7.2% (27/373) were explanted.

\*\*Reasons for inlay removal: Dissatisfaction with visual outcome after 3 months postop (2), epithelial ingrowth (1), haze (1), and an individual request (1). All subjects had a BCDVA of 20/20 or better after inlay removal.

\*These subjects had surgery performed using the single bend inserter, 3 months of steroids, and a flap depth of 30% or greater with a minimum target of 150 microns thick and a diameter of 8 mm or greater.

#### Visual Symptoms\*: Glare and Halos<sup>1</sup>



MKT 253 Rev 2 27 of 36 \*These subjects had surgery performed using the single bend inserter, 3 months of steroids, and a flap depth of 30% or greater with a minimum target of 1503microns thick and a diameter of 8 mm or greater.
# Ocular Symptoms\*: Dry Eye<sup>1</sup>



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MKT 253 Rev 2 28 of 36 \*These subjects had surgery performed using the single bend inserter, 3 months of steroids, and a flap depth of 30% or greater with a minimum target of 1503 microns thick and a diameter of 8 mm or greater.

1. Raindrop Near Vision Inlay-Prescribing Label, ReVision Optics, Inc.

The best way to see the Raindrop Inlay is by asking the patient to look straight at the light while covering the opposite eye

The beam of light should not be projected straight on as this creates scatter, presenting a misleading artifact to evaluate debris or inflammation in the interface



If the beam of light is directed to the side of the inlay, a better assessment of inlay clarity can be made (same eye, from side)



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# Normal Inlay Response

- Normal finding: A thin, white circle of cells fills the tiny gap around the inlay
- No treatment required
- Inlay centrally clear
- No symptoms
- Good VAs





# Postop Management: Slit Lamp Examination

## Haze Development

- Faint peripheral circle occurs in almost every case and does not require treatment
- If you see any activation and progression, topical steroid treatment is necessary



Normal ring, no treatment recommended



Peripheral edge progression



Central haze, treatment recommended

# **Central Corneal Haze**



## Treatment

- Another round of 3 months of steroids
- Vast majority of patients resolve

- Subjective Measurements
  - Reduced near point of focus
  - Increased visual symptoms: glare, halos, ghosting
  - Slit lamp evaluation
  - Decrease in uncorrected distance visual acuity
  - Mild myopic shift (0.50 D to 1.00 D)
- Objective Measurements
  - Corneal topography: Corneal steepening
  - Wavefront Aberrometry

# Look for Changes Over Time

# When to Refer Back

- Decentered Inlay
  - Not on centered over pupil resulting in poor near vision
  - Refer for possible flap lift and repositioning
- Haze
  - If haze persists or recurs after treatment, refer for possible inlay removal
- Patient dissatisfaction with visual outcome after 3M postop



## References

- Online Training Modules
- How-To Videos on Raindrop Near Vision Inlay YouTube Channel
- raindropinlay.com
  - All Important Safety Information
    - Patient Information Brochure
    - Professional Use Information Brochure
- Peer review papers
  - Whitman, et al, Treatment of Presbyopia in Emmetropes Using a Shape-Changing Corneal Inlay: One-Year Clinical Outcomes, Ophthalmology, March 2016



# Conclusion

- Identify ideal Raindrop patients
- Comprehensive eye exam
  - Treat dry eye
  - Contact lens evaluation
- Postop drop compliance and follow up critical
- Significant improvement in near and intermediate\* vision
- Manage any complications
- Know when to refer back



CAUTION: Federal law restricts this device to sale by or on the order of a physician.

**ATTENTION:** Please see Professional Use Information and/or Patient Information Brochure for a complete list of Potential Risks, Warnings and Precautions.

**INDICATIONS FOR USE:** The Raindrop Near Vision Inlay is indicated for intrastromal implantation to improve near vision in the non-dominant eye of phakic, presbyopic patients, 41 to 65 years of age, who have manifest refractive spherical equivalent (MRSE) of +1.00 diopters (D) to -0.50 D with less than or equal to 0.75 D of refractive cylinder, who do not require correction for clear distance vision, but who do require near correction of +1.50 D to +2.50 D of reading add.

## SUMMARY OF IMPORTANT INFORMATION

The Raindrop Near Vision Inlay may not eliminate the need for reading glasses.

Implantation of the Raindrop Near Vision Inlay has the potential to cause vision and eye symptoms; dry eyes; decreased vision; decreased contrast sensitivity; problems with the cornea, such as clouding, thinning, scarring, and inflammation; eye infection; increased eye pressure; and the need for another eye surgery, such as removal or replacement of the inlay, or other treatment.

You should not have the Raindrop Near Vision Inlay implanted if you have severe dry eye; have an active eye infection or active inflammation; have signs of corneal disease characterized by general thinning and cone-shaped protrusion in the center of the cornea (keratoconus) or keratoconus suspect; have abnormal features of the outer part of the eye (cornea) to be implanted; have active abnormal immune response (autoimmune) or connective tissue diseases; do not have enough corneal thickness to safely have the procedure performed; have a recent herpes eye infection or problems resulting from a previous infection; have uncontrolled build-up of high pressure in the eye (glaucoma); have uncontrolled high blood sugar (diabetes).

Before having the Raindrop Near Vision Inlay procedure you should have a complete eye examination and talk with your eye care provider about alternative treatments, potential benefits, complications, risks, healing time, and any other concerns you have about having the procedure.



# TECNIS Symfony® & TECNIS Symfony® Toric IOLs

Leave a legacy of seamless brilliance for patients with presbyopia, with or without astigmatism

This presentation is for and on behalf of Abbott Medical Optics Inc. Doctors who participated are paid consultants for Abbott Medical Optics Inc. PP2016CT0928



## **INTRODUCING:**

The first and only Extended Depth of Focus (EDOF) Presbyopia-Correcting IOL for patients with and without Astigmatism







**INDICATIONS:** The TECNIS<sup>\*</sup> Symfony Extended Range of Vision IOL, Model ZXR00, is indicated for primary implantation for the visual correction of aphakia, in adult patients with less than 1 diopter of pre-existing corneal astigmatism, in whom a cataractous lens has been removed. The lens mitigates the effects of presbyopia by providing an extended depth of focus. Compared to an aspheric monofocal IOL, the lens provides improved intermediate and near visual acuity, while maintaining comparable distance visual acuity. The Model ZXR00 IOL is intended for capsular bag placement only.

**INDICATIONS:** The TECNIS<sup>®</sup> Symfony Toric Extended Range of Vision IOLs, Models ZXT150, ZXT225, ZXT300, and ZXT375, are indicated for primary implantation for the visual correction of aphakia and for reduction of residual refractive astigmatism in adult patients with greater than or equal to 1 diopter of preoperative corneal astigmatism, in whom a cataractous lens has been removed. The lens mitigates the effects of presbyopia by providing an extended depth of focus. Compared to an aspheric monofocal IOL, the lens provides improved intermediate and near visual acuity, while maintaining comparable distance visual acuity. The Model Series ZXT IOLs are intended for capsular bag placement only.

See safety information on slides 28-33

## **STUDY DESIGN**



## **US Clinical Trial:**

## •Well Controlled Study

•Masked: Patients, Technicians, and Abbott

•Randomized:

•50% (N=148) received TECNIS Symfony<sup>®</sup> IOL in both eyes

•50% (N=150) received TECNIS<sup>®</sup> Monofocal IOL in both eyes

• No enhancements of any kind permitted

## •Examinations

•6-Month Follow-up

•FDA required <u>Monocular and Distance-Corrected</u> data for VA, Contrast Sensitivity, and Defocus

•Abbott also reported <u>Binocular and Uncorrected</u> data for VA and patient-reported outcomes

TECNIS Symfony<sup>®</sup> IOL and TECNIS Symfony<sup>®</sup> Toric IOL have been studied in over 2,000 eyes in several studies throughout the world, including the US Clinical Trial.

## **PROPRIETARY TECHNOLOGY**



nentary Enabling Technologies

## **Proprietary Echelette Design**

Extends the depth of focus

## **Proprietary Achromatic Technology**

Corrects chromatic aberration for enhanced image contrast<sup>1</sup>

## **DIFFRACTIVE TECHNOLOGY**





- Diffractive technology has been associated with multifocal IOLs, but it can be used in different ways
- Other industries use diffractive lenses (cameras, telescopes, microscopes) to optimize optical performance under constrained conditions

## **EXTENDED DEPTH OF FOCUS**





The proprietary echelette design introduces a novel pattern of light diffraction that elongates the focus of the eye<sup>1</sup>

- The echelette is the relief or profile of the lens (height differential) within each ring
- The height, spacing, and profile of the echelettes are optimized to create a diffractive pattern for an elongated focus

## **ACTIVE CORRECTION OF CHROMATIC ABERRATION**





Lens with Achromatic Technology

All corneas have a similar amount of chromatic aberration

Proprietary Achromatic Technology is optimized to counteract the chromatic aberration of the cornea Cornea+ Lens with Achromatic Technology



The net result is reduced chromatic aberration

## **TECNIS SYMFONY® IOL**





Sharpest Vision



Enhanced Functionality



Long-Term Sustainability

PP2016CT0928



# **SHARPEST VISION**

## **CONTINUOUS VISION**



**TECNIS Symfony**<sup>®</sup> **IOL provides continuous, high-quality vision at all distances** 



## **BINOCULAR DEFOCUS CURVE AT 6 MONTHS**

# TECNIS Symfony<sup>®</sup> IOL delivers:

- Sustained mean visual acuity of 20/25 or better through 1.5 D of defocus
- Increase of 1.0 D range of vision throughout the defocus curve compared to a monofocal

## **CONTINUOUS VISION**



**TECNIS Symfony**<sup>®</sup> Toric IOL delivers the same continuous range of vision as the TECNIS Symfony<sup>®</sup> IOL

## **BINOCULAR DEFOCUS CURVE AT 6 MONTHS**

Best-Corrected Distance Defocus Curve at 6 Months Adjusted Data Bilateral Subjects with the Same Study IOL (Toric vs. Non-Toric)



1. TECNIS Symfony<sup>®</sup> NZ Study final data

PP2016CT0928

## **EXCELLENT VISION AT ALL DISTANCES**



**TECNIS Symfony<sup>®</sup> IOL delivers excellent uncorrected visual acuity at all distances<sup>1</sup>** 



## UNCORRECTED BINOCULAR VISUAL ACUITY AT 6 MONTHS POSTOPERATIVE

Monocular Distance Corrected vision with TECNIS Symfony<sup>®</sup> IOL improved 2.4 lines for intermediate vision and 2.2 lines for near vision compared to the monofocal control.<sup>1</sup>

## **CHROMATIC ABERRATION CORRECTION**



**TECNIS Symfony**<sup>®</sup> **IOL actively corrects chromatic aberration**<sup>1</sup>

- TECNIS material minimizes chromatic aberration
- In addition the proprietary Achromatic Technology of TECNIS Symfony<sup>®</sup> IOL actively corrects the chromatic aberration of the eye<sup>1</sup>
- AcrySof<sup>®</sup> IQ ReSTOR<sup>®</sup> IOLs induce chromatic aberration of the eye<sup>1</sup>

# (DIOPTER OF DISPERSION)



## **CONTRAST SENSITIVITY**



**TECNIS Symfony**<sup>®</sup> **IOL delivers contrast sensitivity with no clinically significant difference compared to a monofocal IOL** 



MTF50 FAR 5MM IN ACE EYE MODEL<sup>1</sup>



## Significant loss in contrast sensitivity has been linked to increased incidence of crashes and increased risk of falls<sup>3,4</sup>

WARNING: The TECNIS® Symfony IOL may cause a reduction in contrast sensitivity under certain conditions, compared to an aspheric monofocal IOL. The physician should carefully weigh the potential risks and benefits for each patient, and should fully inform the patient of the potential for reduced contrast sensitivity before implanting the lens in patients. Special consideration of potential visual problems should be made before implanting the lens in patients with macular disease, amblyopia, corneal irregularities, or other ocular disease which may cause present or future reduction in acuity or contrast sensitivity. Patients implanted with the lens should be informed to exercise special caution when driving at night or in poor visibility conditions.

1. DOF2015CT0020\_MTF of TECNIS Symfony IOL, and other lens models. 2. TECNIS<sup>®</sup> Symfony DFU 3. Owsley, McGwin. Vision Impairment and Driving. Survey of Ophthalmology. 43;6:535-550, 1999 4. Dhital, Pey and Stanford. Visual loss and falls: a review. Nature Eye. 24:1437-1446, 2010.

## TECNIS SYMFONY® TORIC IOL: SHARPEST VISION FOR PATIENTS WITH ASTIGMATISM



## **92%** of patients achieved ≤ 0.50 D of residual refractive cylinder<sup>1</sup>

**STUDY DESIGN:** Evaluate the clinical outcomes of far, intermediate and near visual acuities of patients implanted with the TECNIS Sym**f**ony<sup>®</sup> Toric IOL

- 6-month, prospective, bilateral, open-label clinical investigation, at 2 sites in New Zealand
- TECNIS Symfony<sup>®</sup> Toric IOL n=39

## **POST-OP CYLINDER CORRECTION RESULTS:**

 Mean\*
 92%

 0.34D
 92%

 of patients have ≤ 0.5 D

**WARNING**: Rotation of TECNIS<sup>®</sup> Symfony Toric IOLs away from their intended axis can reduce their astigmatic correction. Misalignment greater than 30° may increase postoperative refractive cylinder. If necessary, lens repositioning should occur as early as possible prior to lens encapsulation. \*First Eye Data

1. DOF2016CT0025 TECNIS Symfony Toric Results

PP2016CT0928



## **TOLERANCE TO ASTIGMATISM**



TECNIS Symfony<sup>®</sup> IOLs delivers 20/20 vision even in the presence of astigmatism<sup>1, 2</sup>



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## **BINOCULAR MANIFEST CYLINDER DEFOCUS CURVES AT 6 MONTHS**

## **TOLERANCE TO DECENTRATION**



**TECNIS Symfony® IOL maintains image quality throughout 0.75 mm of decentration<sup>1</sup>** 



These calculations were performed with theoretical calculations.<sup>1</sup> In the US Clinical Trial there was no report of decentration at 6 months.<sup>2</sup>

1. DOF2016CT0023 TECNIS Symfony<sup>®</sup> IOL Tolerance to decentration. 2. TECNIS Symfony<sup>®</sup> IOL DFU

## LOW INCIDENCE OF HALO AND GLARE



Less than 3% of patients spontaneously reported incidence of severe night vision symptoms



**WARNING:** Some visual effects associated with the TECNIS® Symfony IOL may be expected due to the lens design that delivers elongation of focus. These may include a perception of halos, glare, or starbursts around lights under nighttime conditions. The experience of these phenomena will be bothersome or very bothersome in some people, particularly in low-illumination conditions. On rare occasions, these visual effects may be significant enough that the patient may request removal of the IOL.

1. TECNIS<sup>®</sup> Symfony<sup>®</sup> IOL DFU

## LOW INCIDENCE OF HALO AND GLARE



**TECNIS Symfony® IOL demonstrated a low incidence of halo and glare** 



**WARNING:** Some visual effects associated with the TECNIS Symfony<sup>®</sup> IOL may be expected due to the lens design that delivers elongation of focus. These may include a perception of halos, glare, or starbursts around lights under nighttime conditions. The experience of these phenomena will be bothersome or very bothersome in some people, particularly in low-illumination conditions. On rare occasions, these visual effects may be significant enough that the patient may request removal of the IOL.

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1. TECNIS Symfony<sup>®</sup> IOL DFU

## PUPIL INDEPENDENT LENS PERFORMANCE



**TECNIS Sym***f*ony<sup>®</sup> **IOL** pupil independence enables optimal performance in all lighting conditions<sup>1,2</sup>

# TECNIS<br/>Symfony® IOLAcrysoft ReSTOR<br/>+2.5 D IOLAcrysoft ReSTOR<br/>+3.0 D IOL-8%-8%-29%-42%

## MTF LOSS WHEN THE PUPIL OPENS FROM 3mm TO 5mm

## Distance MTF at 50 c/mm in white light

Less MTF loss provides better contrast under low-light conditions

## LOW SPECTACLE WEAR



85% of TECNIS Symfony® IOL patients wore glasses none or a little bit of the time\*





\*Although the questionnaire was not determined to be a psychometrically valid assessment of the concept of spectacle independence, data showed that the Symfony IOL achieved the secondary effectiveness endpoint of reduced overall spectacle wear compared to the control monofocal IOL

PP2016CT0928



# LONG-TERM SUSTAINABILITY

## LONG-TERM SUSTAINABILITY





1. Data on File 150\_Sensar not associated with glistenings – Literature analysis. Abbott Medical Optics, Inc., 2013. REF2014OTH0002 2. Christiansen G, et al. Glistenings in the AcrySof® intraocular lens: Pilot study. *JCRS* 2001; 27:728-733. REF2014MLT0005. 3. Colin J, et al. Incidence of glistenings with t.he latest generation of yellow-tinted hydrophobic acrylic intraocular lenses. *JCRS* 2012; 38:1140-1146. REF2014MLT0006. 4. Gunenc U, et al. Effects on visual function of glistenings and folding marks in AcrySof® intraocular lenses. *JCRS* 2001; 27:1611-1614. REF2014MLT0011. 5. Nagata M, et al. Clinical evaluation of the transparency of hydrophobic acrylic intraocular lens optics. *JCRS* 2010; 36:2056-2060. REF2015CT0080. 6. Bousquet M, PhD, Health Canada. Intraocular lenses and the development of glistenings. Canadian Adverse Reaction Newsletter 2013. REF2015CT0254. 7. Miyata A, Yaguchi S. Equilibrium water content and glistenings in acrylic intraocular lenses. *JCRS* 2004; 30:1768-1772. REF2014OTH0032. 8. van der Mooren, et al. Explanted multifocal intraocular lenses. *JCRS* 2015; 41:873-877. REF2015OTH0117. 9. Van der Mooren M, et al. Effects of glistenings in intraocular lenses. *Biomedical Optics Express*.11 July 2013:1294-1304. REF2014OTH0139.

## **PATIENT SATISFACTION**



**TECNIS Symfony® IOL delivers high patient satisfaction** 





1.. DOF2016CT0024 Concerto Study Report, 2. DOF2015OTH0009 Symfony Harmony Observational Study

## **TECNIS SYMFONY® IOL**



First and only Extended Depth of Focus Presbyopia-Correcting IOL



## High-quality continuous vision at all distances<sup>1</sup>

- Proprietary echelette design delivers an sustained mean visual acuity of 20/25 or better through 1.5 D of defocus
- Excellent uncorrected visual acuity at all distances<sup>1</sup>
- Proprietary achromatic technology actively corrects chromatic aberration for improved image contrast<sup>1,5</sup>



#### **Forgiving lens**

- Tolerance to astigmatism<sup>2,3</sup>
- Tolerance to decentration<sup>4</sup>

## Excellent overall performance in any lighting condition

- Low incidence of halo and glare<sup>1</sup>
- Pupil independent lens performance<sup>1,5</sup>

#### Low spectacle wear

 85% of patients wore glasses None or A little bit of the time<sup>1</sup>



### **TECNIS<sup>®</sup> IOL material is not associated** with glistenings<sup>6</sup>

- Glistenings cause light scatter resulting in reduction in image contrast<sup>11-13</sup>
- AcrySof<sup>®</sup> IQ ReSTOR<sup>®</sup> IOLs have glistenings<sup>7-10</sup>

## **High Patient Satisfaction**

>94% of patients would recommend the lens to family and friends<sup>14,15</sup>

# TECNIS Symfony<sup>®</sup> Toric IOL provides continuous, high quality vision at all distances for patients with astigmatism

- TECNIS Symfony Toric patients experience all the benefits of the TECNIS Symfony IOL<sup>2</sup>
- 92% of TECNIS Symfony<sup>®</sup> Toric IOL patients achieved ≤0.50 diopters of residual refractive cylinder<sup>2</sup>

## **REFERENCES FOR SUMMARY SLIDES**



- 1. TECNIS Symfony DFU
- 2. DOF2016CT0025 TECNIS Symfony Toric Results
- 3. SC20160OTH004 Preclinical Evaluation of Tolerance to Astigmatism with an ERV IOL
- 4. DOF2016CT0023 TECNIS Symfony® IOL Tolerance to decentration.
- 5. DOF2015CT0018\_MTF of TECNIS Symfony IOL, and other lens models
- 6. Data on File 150\_Sensar not associated with glistenings Literature analysis. Abbott Medical Optics, Inc., 2013.
- 7. Christiansen G, et al. Glistenings in the AcrySof<sup>®</sup> intraocular lens: Pilot study. *JCRS* 2001; 27:728-733. REF2014MLT0005.
- 8. Colin J, et al. Incidence of glistenings with the latest generation of yellow-tinted hydrophobic acrylic intraocular lenses. JCRS 2012; 38:1140-1146. REF2014MLT0006.
- 9. Gunenc U, et al. Effects on visual function of glistenings and folding marks in AcrySof<sup>®</sup> intraocular lenses. *JCRS* 2001; 27:1611-1614. REF2014MLT0011.
- 10. Nagata M, et al. Clinical evaluation of the transparency of hydrophobic acrylic intraocular lens optics. *JCRS* 2010; 36:2056-2060. REF2015CT0080.
- 11. Bousquet M, PhD, Health Canada. Intraocular lenses and the development of glistenings. Canadian Adverse Reaction Newsletter 2013. REF2015CT0254.
- 12. Miyata A, Yaguchi S. Equilibrium water content and glistenings in acrylic intraocular lenses. *JCRS* 2004; 30:1768-1772. REF2014OTH0032.
- 13. van der Mooren, et al. Explanted multifocal intraocular lenses. *JCRS* 2015; 41:873-877. REF2015OTH0117.
- 14. DOF2016CT0024 Concerto Study Report
- 15. DOF2015CT0028 Symfony Harmony Observational Study
# INDICATIONS AND IMPORTANT SAFETY INFORMATION FOR THE TECNIS SYMFONY<sup>®</sup> EXTENDED RANGE OF VISION IOLs



#### **Caution:**

Federal law restricts this device to sale, distribution and use by or on the order of a physician.

#### **Indications for use:**

- The TECNIS® Symfony Extended Range of Vision IOL, Model ZXR00, is indicated for primary implantation for the visual correction of aphakia, in adult patients with less than 1 diopter of pre-existing corneal astigmatism, in whom a cataractous lens has been removed. The lens mitigates the effects of presbyopia by providing an extended depth of focus. Compared to an aspheric monofocal IOL, the lens provides improved intermediate and near visual acuity, while maintaining comparable distance visual acuity. The Model ZXR00 IOL is intended for capsular bag placement only.
- The TECNIS® Symfony Toric Extended Range of Vision IOLs, Models ZXT150, ZXT225, ZXT300, and ZXT375, are indicated for primary implantation for the visual correction of aphakia and for reduction of residual refractive astigmatism in adult patients with greater than or equal to 1 diopter of preoperative corneal astigmatism, in whom a cataractous lens has been removed. The lens mitigates the effects of presbyopia by providing an extended depth of focus. Compared to an aspheric monofocal IOL, the lens provides improved intermediate and near visual acuity, while maintaining comparable distance visual acuity. The Model Series ZXT IOLs are intended for capsular bag placement only.

#### Warnings:

Physicians considering lens implantation under any of the following circumstances should weigh the potential risk/benefit ratio:

- 1. Patients with any of the following conditions may not be suitable candidates for an intraocular lens because the lens may exacerbate an existing condition, may interfere with diagnosis or treatment of a condition, or may pose an unreasonable risk to the patient's eyesight:
  - a. Patients with recurrent severe anterior or posterior segment inflammation or uveitis of unknown etiology, or any disease producing an inflammatory reaction in the eye.
  - b. Patients in whom the intraocular lens may affect the ability to observe, diagnose or treat posterior segment diseases.
  - c. Surgical difficulties at the time of cataract extraction, which may increase the potential for complications (e.g., persistent bleeding, significant iris damage, uncontrolled positive pressure or significant vitreous prolapse or loss).
  - d. A compromised eye due to previous trauma or developmental defects in which appropriate support of the IOL is not possible.
  - e. Circumstances that would result in damage to the endothelium during implantation.
  - f. Suspected microbial infection.
  - g. Patients in whom neither the posterior capsule nor the zonules are intact enough to provide support for the IOL.
  - h. Children under the age of 2 years are not suitable candidates for intraocular lenses.
  - i. Congenital bilateral cataracts.
  - j. Previous history of, or a predisposition to, retinal detachment.
  - k. Patients with only one good eye with potentially good vision.
  - I. Medically uncontrollable glaucoma.
  - m. Corneal endothelial dystrophy.
  - n. Proliferative diabetic retinopathy.

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#### Warnings(cont):

- 2. The TECNIS® Symfony IOL should be placed entirely in the capsular bag and should not be placed in the ciliary sulcus.
- 3. The TECNIS<sup>®</sup> Symfony IOL may cause a reduction in contrast sensitivity under certain conditions, compared to an aspheric monofocal IOL. The physician should carefully weigh the potential risks and benefits for each patient, and should fully inform the patient of the potential for reduced contrast sensitivity before implanting the lens in patients. Special consideration of potential visual problems should be made before implanting the lens in patients with macular disease, amblyopia, corneal irregularities, or other ocular disease which may cause present or future reduction in acuity or contrast sensitivity.
- 4. Because the TECNIS<sup>®</sup> Symfony IOL may cause a reduction in contrast sensitivity compared to a monofocal IOL, patients implanted with the lens should be informed to exercise special caution when driving at night or in poor visibility conditions.
- 5. Some visual effects associated with the TECNIS<sup>®</sup> Symfony IOL may be expected due to the lens design that delivers elongation of focus. These may include a perception of halos, glare, or starbursts around lights under nighttime conditions. The experience of these phenomena will be bothersome or very bothersome in some people, particularly in low-illumination conditions. On rare occasions, these visual effects may be significant enough that the patient may request removal of the IOL.
- Patients with a predicted postoperative astigmatism greater than 1.0 diopter may not be suitable candidates for implantation with the TECNIS<sup>®</sup> Symfony and TECNIS<sup>®</sup> Symfony Toric IOLs, Models ZXR00, ZXT150, ZXT225, ZXT300, and ZXT375, as they may not obtain the benefits of reduced spectacle wear or improved intermediate and near vision seen in patients with lower astigmatism.
- 7. The effectiveness of TECNIS<sup>®</sup> Symfony Toric IOLs in reducing postoperative residual astigmatism in patients with preoperative corneal astigmatism < 1.0 diopter has not been demonstrated.
- 8. Rotation of TECNIS<sup>®</sup> Symfony Toric IOLs away from their intended axis can reduce their astigmatic correction. Misalignment greater than 30° may increase postoperative refractive cylinder. If necessary, lens repositioning should occur as early as possible prior to lens encapsulation.
- 9. AMO IOLs are single-use devices only. Do not reuse this IOL.

#### **Precautions:**

- 1. Prior to surgery, the surgeon must inform prospective patients of the possible risks and benefits associated with the use of this device and provide a copy of the patient information brochure to the patient.
- 2. When performing refraction in patients implanted with the TECNIS<sup>®</sup> Symfony IOL, interpret results with caution when using autorefractors or wavefront aberrometers that utilize infrared light, or when performing a duochrome test. Confirmation of refraction with maximum plus manifest refraction technique is recommended.
- 3. The ability to perform some eye treatments (e.g. retinal photocoagulation) may be affected by the TECNIS® Symfony IOL optical design.
- 4. Recent contact lens usage may affect the patient's refraction; therefore, in contact lens wearers, surgeons should establish corneal stability without contact lenses prior to determining IOL power.
- 5. Do not resterilize the lens. Most sterilizers are not equipped to sterilize the soft acrylic material without producing undesirable side effects.
- 6. Do not soak or rinse the intraocular lens with any solution other than sterile balanced salt solution or sterile normal saline.
- 7. Do not store the lens in direct sunlight or at a temperature greater than 113°F (45°C). Do not autoclave the intraocular lens.
- 8. The surgeon should target emmetropia as this lens is designed for optimum visual performance when emmetropia is achieved.
- 9. Care should be taken to achieve IOL centration, as lens decentration may result in a patient experiencing visual disturbances under certain lighting conditions.
- 10. When the insertion system is used improperly, TECNIS<sup>®</sup> Symfony IOLs may not be delivered properly (i.e., haptics may be broken). Please refer to the specific instructions for use provided with the insertion instrument or system.
- 11. The safety and effectiveness of TECNIS<sup>®</sup> Symfony IOLs have not been substantiated in patients with preexisting ocular conditions and intraoperative complications (see below for examples). Careful preoperative evaluation and sound clinical judgment should be used by the surgeon to decide the benefit/risk ratio before implanting a lens in a patient with one or more of these conditions:

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# INDICATIONS AND IMPORTANT SAFETY INFORMATION FOR THE TECNIS SYMFONY<sup>®</sup> EXTENDED RANGE OF VISION IOLs



#### Precautions (cont.):

#### **Before Surgery**

- Pupil abnormalities
- Prior corneal refractive or intraocular surgery
- Choroidal hemorrhage
- Chronic severe uveitis
- Concomitant severe eye disease
- Extremely shallow anterior chamber
- Medically uncontrolled glaucoma
- Microphthalmos
- Non-age-related cataract
- Proliferative diabetic retinopathy (severe)
- Severe corneal dystrophy
- Severe optic nerve atrophy
- Irregular corneal astigmatism
- Amblyopia
- Macular disease
- Pregnancy

#### **During Surgery**

- Excessive vitreous loss
- Non-circular capsulotomy/capsulorhexis
- The presence of radial tears known or suspected at the time of surgery
- Situations in which the integrity of the circular capsulotomy/capsulorhexis
- Cataract extraction by techniques other than phacoemulsification or liquefaction
- Capsular rupture
- Significant anterior chamber hyphema
- Uncontrollable positive intraocular pressure
- Zonular damage

# INDICATIONS AND IMPORTANT SAFETY INFORMATION FOR THE TECNIS SYMFONY<sup>®</sup> EXTENDED RANGE OF VISION IOLs



#### **Precautions (cont.):**

- 12. Carefully remove all viscoelastic and do not over-inflate the capsular bag at the end of the case. Residual viscoelastic and/or overinflation of the capsular bag may allow the lens to rotate, causing misalignment of the TECNIS® Symfony Toric IOL with the intended axis of placement.
- 13. The use of methods other than the TECNIS Toric Calculator to select cylinder power and appropriate axis of implantation were not assessed in the parent TECNIS® Toric IOL U.S. IDE study and may not yield similar results. Accurate keratometry and biometry, in addition to the use of the TECNIS Toric Calculator (<u>www.TecnisToricCalc.com</u>), are recommended to achieve optimal visual outcomes for the TECNIS® Symfony Toric IOL.
- 14. All preoperative surgical parameters are important when choosing a TECNIS<sup>®</sup> Symfony Toric IOL for implantation, including preoperative keratometric cylinder (magnitude and axis), incision location, surgeon's estimated surgically induced astigmatism (SIA) and biometry. Variability in any of the preoperative measurements can influence patient outcomes, and the effectiveness of treating eyes with lower amounts of preoperative corneal astigmatism.
- 15. All corneal incisions were placed temporally in the parent TECNIS<sup>®</sup> Toric IOL U.S. IDE study. If the surgeon chooses to place the incision at a different location, outcomes may be different from those obtained in the clinical study for the parent TECNIS<sup>®</sup> Toric IOL. Note that the TECNIS Toric Calculator incorporates the surgeon's estimated SIA and incision location when providing IOL options.
- 16. Potential adverse effects (e.g., complications) associated with the use of the device include the following:
  - Infection (endophthalmitis)
  - Hypopyon
  - IOL dislocation
  - Cystoid macular edema
  - · Corneal edema
  - Pupillary block
  - Iritis
  - Retinal detachment/tear
  - Raised IOP requiring treatment
  - Visual symptoms requiring lens removal
  - Tilt and decentration requiring repositioning
  - Residual refractive error resulting in secondary intervention.
  - Secondary surgical interventions include, but are not limited to:
  - Lens repositioning (due to decentration, rotation, subluxation, etc.)
  - Lens replacement
  - Vitreous aspirations or iridectomy for pupillary block
  - Wound leak repair
  - Retinal detachment repair
  - Corneal transplant
  - Lens replacement due to refractive error
  - Unacceptable optical/visual symptoms
  - Severe inflammation.

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# INDICATIONS AND IMPORTANT SAFETY INFORMATION FOR THE TECNIS SYMFONY<sup>®</sup> EXTENDED RANGE OF VISION IOLS



#### **SERIOUS ADVERSE EVENTS:**

The most frequently reported serious adverse events that occurred during the clinical trial of the Tecnis Symfony lens were cystoid macular edema (2 eyes, 0.7%) and surgical reintervention (treatment injections for cystoid macular edema and endophthalmitis, 2 eyes, 0.7%). One eye was reported with pupillary capture and the eye that had endophthalmitis also had a small hypopyon. No other serious adverse events and no lens-related adverse events occurred during the trial

# INDICATIONS AND IMPORTANT SAFETY INFORMATION FOR TECNIS® 1-Piece IOL



## Rx Only

#### INDICATIONS

The TECNIS 1-Piece lens is indicated for the visual correction of aphakia in adult patients in whom a cataractous lens has been removed by extracapsular cataract extraction. These devices are intended to be placed in the capsular bag.

## WARNINGS

Physicians considering lens implantation should weigh the potential risk/benefit ratio for any conditions described in the TECNIS 1-Piece IOL Directions for Use that could increase complications or impact patient outcomes. The TECNIS 1-Piece IOL should not be placed in the ciliary sulcus.

## PRECAUTIONS

Do not reuse, resterilize, or autoclave.

#### **ADVERSE EVENTS**

In 3.3% of patients, reported adverse events of cataract surgery with the 1-Piece IOL included macular edema.

## ATTENTION

Reference the Directions for Use for a complete listing of indications and important safety information.

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## CURRENT POSITION

BATRA VISION MEDICAL GROUP Director, Cornea, Cataract and Refractive Surgeon SAN LEANDRO, CA 2002-Current

# **EDUCATION**

UCSF DEPARTMENT OF OPHTHALMOLOGY	SAN FRANCISCO, CA
Clinical fellow in Cornea and Refractive Surgery (UCSF/Proctor Foundation)	1999-2000
Heed Foundation Fellow	1999-2000
Resident in Ophthalmology	1996-1999
UCLA SCHOOL OF MEDICINE	LOS ANGELES, CA
Intern in Internal Medicine (SFV Program)	1995-1996
M.D., 1995	1991-1995
DARTMOUTH COLLEGE	HANOVER, NH
A.B. in Economics modified with Biology, 1991	1988-1991

# PUBLICATIONS

Batra VN, Mcleod SD "Phakic IOL's" Ophthalmology Clinics of North America 2001 Batra VN, Turner SG "Quinolone Resistant Staph following LASIK" Poster ISRS 2001 Batra VN, Abbott RA "Bacterial Corneal Ulcers" Ophthalmology for Self Assessment/Review 2001 Abbott RA, Batra VN "Intrastromal Corneal Rings" Duane's Ophthalmology 2000 Batra VN, "Corneal Physiology" for YourDoctor.com (ed G Smolin MD) Batra VN, "Implantable lens technology for refractive errors" for YourDoctor.com (ed D Hwang MD) Batra VN, Maloney RK "Refractive outcome in radial keratotomy: does the result of the first eye predict the outcome in the second?" Ophthalmology Digest, Oct 1997 Batra VN, Maloney RK, "Refractive outcome of radial keratotomy: does the result of the first eye predict outcome in the second eye?" American Journal of Ophthalmology, Feb 1997.

#### **MEETINGS/LECTURES/COURSES**

"Refractive Surgery Update 2004" San Ramon, CA 2004

"Scleritis, Episcleritis, Endrophthalmitis" UC Berkeley School of Optometry 2003

"Thin Flap Lasik" Course Director ASCRS 2003 (San Francisco)

"Intacs following PRK in Keratoconus" ASCRS 2003 (San Francisco)

"Visx S3 Versus Visx S4 Laser Comparison" ASCRS (San Francisco)

"Intacs in Keratoconus" Cordes Eye Society Meeting 2003

"Wavefront Rountable" Alamo CA 2003

"Scleritis, Episcleritis, Endophthalmitis" UC Berkeley School of Optometry 2002

"New Developments in Ocular Diseases" Eden Hospital Grand Rounds 2002

"Use of Lasers in Ophthalmology" Eden Hospital Grand Rounds 2002

"Scleritis, Episcleritis, Endophthalmitis" UC Berkeley School of Optometry 2001

"Tracking Laser Comparison VISX S3 vs Ladarvision" ISRS 2001 (New Orleans)

"VISX S3 and Autononomous LADARVISION" Cordes Eye Society Meeting 2001 "New Advancements in Refractive Surgery" Eden Hospital Grand Rounds 2001 "Refractive Surgery Advancements and Complications" Commonwealth Club of SF April 2001 "LASIK and other Refractive Surgical Procedures" Rotary Club of Oakland 2001 "SB929 for OD's" Course Director TEIMG February and March Meetings 2001 "Cornea and External Disease" Santa Clara Optometric Society Meeting February 2001 "The Ocular Surface"; "LASIK Complications"; "Cornea and External Disease" for SB929 TEIMG 2001 "Scleritis, Episcleritis, Endophthalmitis" UC Berkeley School of Optometry 2000 "Xalatan for Corneal Haze following PRK" ASRCS 2000 (Boston) "Sterile Corneal Infiltrates following PRK" ASCRS 2000 (Boston) "Ocular Toxicity" Cordes Eye Society Meeting 2000 (San Francisco) "The role of drug compounding in Ophthalmology" PCCA Meeting 2000 (Key Note) 2000 "Principles of cataract surgery" UCSF Basic Science Course December 1999 "Anterior segment surgical techniques and pearls" UCSF Microsurgery Course Fall 1999 "Intraocular Infection in a Pediatric Consult Service" OMIG 1999 (AAO-Orlando) "Analysis of the pediatric ophthalmology consult service" 1999 PCOOS Meeting (Vancouver) "Pediatric Ophthalmology at UCSF" Cordes Eye Society Meeting 1999 (San Francisco) "Outcomes of the ICRS Phase III Study" presented at UCSF Residents' Day 1998 "Outcomes in refractive surgery" presented at PCOOS Meeting 1997 (San Diego) "Juxtafoveal telangectasia" case presentation at UCSF grand rounds 1998 "Intraocular pressure measurement" case presentation at UCSF grand rounds 1997 "Hypertensive retinopathy" case presentation at UCSF grand rounds 1997 "Radiographic Assessment of Thoracic Coccidioidomycosis" 1994 American Roentgenray Society (ARS) and 1993 Radiological Society of North America (RSNA). "Hypersensitivity Lung Diseases" 1992 ARS and 1991 RSNA. "Cavitary Lung Cancer: Causes of Excavation, Radiographic Features and Differential Diagnosis" 1992

ARS and 1991 RSNA.

# WORK EXPERIENCE

Eye Physician and Surgeon	July 2000-February 2003
Turner Eye Institute, Performed Cornea, Cataract and Refractive Surgery	
Medical Assistant	Spring 1990, summer 1991
Set up computer database for the office ans assisted in patient care in a private	
practice setting	
Tutor	1088-1001
Peer tutor in Economics and Physics	1700-1771

# **SOCIETIES**

American Board of Ophthalmology, Diplomate	2000-Current
American Academy of Ophthalmology, Member	1997-Current
American Society of Cataract and Refractive Surgery, Member	1998-Current
Association of American Physicians of Indian Origin, Member	1998-Current
Frederick C. Cordes Eye Society, Member	1996-Current
Student President, Indian Medical Association of Greater Los Angeles	1992-1994
Medical School Curriculum Evaluation Committee, Member	1993-1994
Sales Coordinator, Class of 1995	1992-1994
Big Sibling Coordinator	1992-1993

# PERSONAL

Racquetball (finalist, UCLA 1991-1992), basketball, skiing and salt-water fish hobbyist.