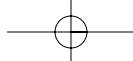




20/20
Opticians'
Handbook
Second Edition

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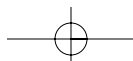
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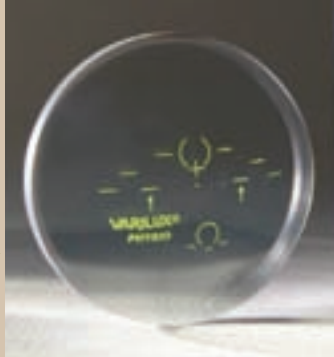
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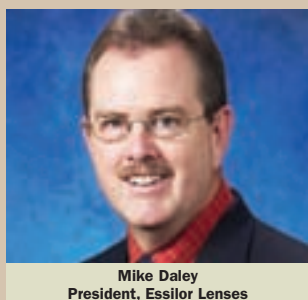
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Opticians' Handbook



Welcome...



Mike Daley
President, Essilor Lenses



Pierre Fay, Senior Vice President,
Luxottica Group

Dear Reader,

Essilor of America and Luxottica Group are delighted to produce this second Opticians Handbook adding new material critical to the optician in an ever-changing marketplace.

This Handbook contains key information about frames and lenses that can improve the knowledge and skills to provide a better eyewear solution for every patient. And, like Volume I, we've included quick reference tables and tools for easy access to the science of eyewear dispensing.

This Handbook can help you meet your professional goals and is a commitment from our companies to provide knowledge about existing and especially new products.

One of the optician's jobs is to describe eyewear options and the benefits of those options for every patient. This Handbook provides key details, tools and scripts to get the right eyewear on every patient. This version targets maximizing opportunity, lens prism, sunwear details, improving sunwear sales and use of the newest progressive lens technologies to capture business opportunities often missed.

If you like this issue, let us know. We've provided for extra copies so contact your Varilux, Essilor or Luxottica representative. The first Handbook edition can be viewed at www.2020mag.com.

We are interested in your comments and suggestions about this handbook as well as other topics you would like to see covered in the future. Please email us at opticianshandbook@jobson.com. We look forward to hearing from you.

- 4 Maximizing Patient Opportunities
- 7 The Prescription
- 9 Pupillary Distance and Segment Height
- 10 Techniques & Technology of Frames
- 13 Lenses, Materials, Treatments & Design
- 16 Choose & Use Sunwear More Effectively
- 20 Photochromics and AR Lenses
- 23 AR Lenses
- 26 Putting It All Together
- 28 Resource Guide
- 29 2006 Opticians' Calendar

Maximizing Patient Opportunities

The Appointment Book

An appointment book with openings means fewer exams, eyewear sales and more importantly, patients needing services are not seen. Filling the appointment book depends on the skill and knowledge of the front desk person, according to Mary E. Schmidt, president of EyeSystems, an independent optometric consulting firm.

The front desk person is the most important asset in any office to ensure that the appointment book is as full and complete as possible. So, this should be the person(s) who best reflects the office and the practice. Make sure that they are knowledgeable about the products and services available and ensure that front desk people participate in product and office system training. In this way, they always represent the most contemporary in professional care.

Plan to invest in two or more formal training programs annually either internally, at trade shows or through a professional organization.

Create a sense of pride in the front desk position. This person impacts every patient that contacts your practice. Every staff member must understand how to correctly communicate the quality of the practice and the care provided. If done properly, patients arrive with an enthusiasm and an expectation of quality care. If the staff is uninformed, indifferent, impatient or annoyed, patients will not book an appointment but instead call the next practice listed in their insurance plan booklet or the Yellow Pages.

PHONE ETIQUETTE

To start, use this 12 point check list to set staff performance expectation levels.

1. Prepare before you pick up the phone
2. Answer on the first two rings
3. SMILE
4. Introduce your office and state your name
5. Speak distinctly
6. Don't eat, chew or drink
7. Listen to what the caller says
8. Take clear notes
9. Cultivate a courteous and friendly attitude
10. Watch your language
11. Treat your patients the way you want to be treated
12. Thank them for calling

Develop and use scripts that prepare the staff to answer these frequently asked questions. Scripts provide information continuity by staff for any patient as they move through the office. Each section of this Handbook provides models of scripts. For example:

1. Is your doctor a good doctor?
2. Which doctor in the practice is best?
3. Should I see an ophthalmologist or an optometrist?

Provide an information sheet to staff that enables them to communicate special office and eyecare skills and attributes. Don't try to be all things to all people, choose an area to emphasize, adapt it to your community, do it well and then add additional services. Improve them, communicate their availability and then add another and so on.

A good source of information is the Luxottica Agenda Book.

Beginning the Sale When Making the Appointment

After agreeing on a date and time and prior to hanging up, always ask patients to be sure to bring their clear prescription and prescription sunglasses with them to the appointment. Take this opportunity to assure them that while in the office, both the doctor and the optician will describe the wonderful selection of sunglass frames and lenses that are available for their special prescription needs.

Convert Eye Exams to Eyewear Sales

To capture a patient's intention to buy eyewear, everyone in the office needs to help the patient understand the benefits of vision solutions. In this way the patient can choose which of the recommended options to buy. If they don't hear it from you—they go elsewhere.

The front desk is the first point of contact to talk in general about the variety of products and suggest types of eyewear that patients will learn about when visiting the office. The reception area (it's not a waiting room) should be used to teach and predispose patients about choices. So it is in the reception area that lifestyle questionnaires are completed, computer-generated descriptions are viewed and product brochures are provided. Awareness of options allows for a better exam because the patient will be reminded to discuss their eyewear needs.



The technician initiates the exam, records history and collects field, corneal, auto refractor and retinal image data. This is an opportunity to answer patient's questions about their vision test and the needs the doctor can address.

The doctor prescribes solutions for healthy vision. That means the Rx is not just a set of numbers but a series of



SAMPLE SCRIPTS

1. Is your doctor a good doctor?
 - a. 1. My doctor is outstanding, he/she studied at _____ and has been in practice for ___ years. The doctor specializes in _____. (This comment should be relevant to whatever is the practice focus or something the patient has expressed an interest in. Don't try to be all things to all patients. Keep it simple.)
2. Which doctor in the practice is best?
 - a. All our doctors are great. Let me tell you a little bit about each and then maybe that will help you decide. (At each telephone have a quick reference on the doctors and their backgrounds and credentials; this should be stated to the patient in a conversational manner not read.)
3. Should I see an ophthalmologist or an optometrist?
 - a. Doctor _____ is an optometrist and is trained to treat the overall health of your eyes and is an expert in assessing vision needs. He/she uses a wide variety of tests and procedures during the exam. These tests range from reading an eye chart, to the more complicated like viewing the structures inside your eyes. An ophthalmologist is an eye surgeon, a specialist and should Doctor _____ see anything of concern, he/she will immediately refer you to one of the doctors that we work closely with. Can I schedule an eye appointment for you now?

recommended solutions. For example, glasses can provide UV protection, excellent acuity, binocularity, wider mid range vision while working at a computer, cool looking sunglasses and/or those wrap Rx sunglasses they always wanted. Research tells us that patients have confidence in the professional exam side of the practice but often take the Rx elsewhere for a variety of reasons. As a result, practitioners should recommend/prescribe products from the chair i.e., as an overview, describe eyewear options and the benefits for that particular patient.

The optician continues the product dialogue but now explains in detail the benefits of each of the recommended forms of eyewear solutions. Then it is time to make the final recommendation combining the right mix of design, material and treatment with the frames selected for each of the pairs of glasses prescribed. When the consumer understands the benefits of the many options available i.e., ophthalmic sunwear, anti-reflective lenses, Transitions products they are better prepared to make the right purchase decisions.

An important and sometimes forgotten courtesy is to walk the patient to the next station in the exam. Also, be sure to introduce them to the technician, doctor or optician. It's efficient and makes the patient feel as important to the practice as they really are.



Not just product but a healthier patient visually

(Adapted from "Healthy Sight Counseling, A New Approach to Healthy Vision," an article by Susan Stenson, MD)

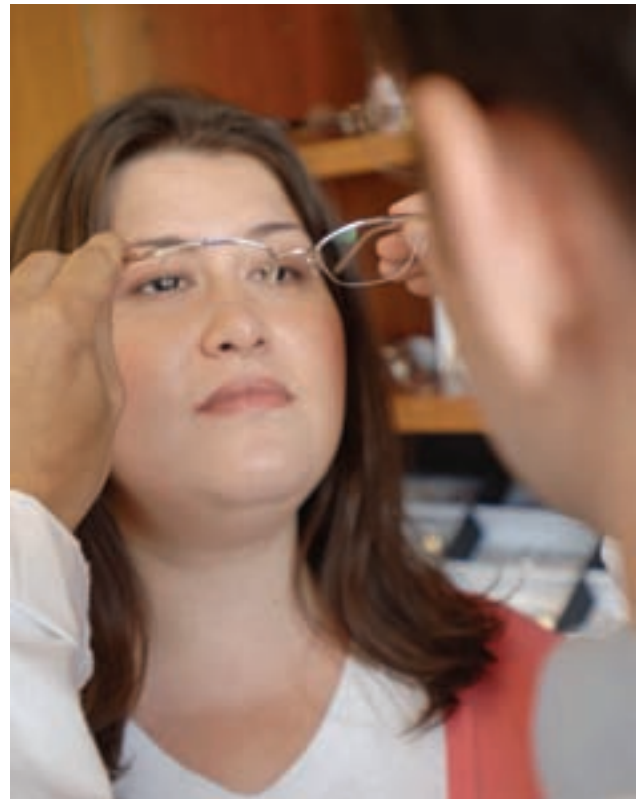
Healthy sight implies good sight; good sight depends on ocular health. Healthy sight counseling (HSC) considers vision wear and vision care. The two are intimately interrelated. Modern spectacle lenses and lens treatments can go beyond simply correcting vision, offering the potential to actually enhance the quality of vision and contribute to long-term eye health. In so doing they become a crucial component of vision care and act, with a combination of other factors, to promote healthy sight.

Healthy sight counseling is a three step process. **Step 1** requires **vision wear** is based on the relevant prescription and spectacle-related factors that have an impact on healthy sight. With true lifestyle prescribing, the enhanced eyeglass prescription takes into account the unique personal, occupational, social and recreational vision needs of the wearer so as to provide quality eyesight under diverse lifestyle circumstances.

Step 2 is **vision care** emphasizing maintenance and preventive eyecare. Spectacles are also prescribed and like a drug prescription, address all the components of healthy sight. If the role of spectacles goes beyond simply correcting ametropias, and if their potential value in healthy sight (i.e., enhancing everyday vision quality and protecting and preserving ocular health long term) is recognized, then medical as well as optical considerations should be involved in prescribing them.

There are three basic components of the complete eye exam: the history, the refraction and the physical ophthalmic examination. While the refraction is generally considered to be the basis for prescribing spectacles, findings obtained in the history taking and in the course of the physical ophthalmic examination may be relevant to creating the lifestyle prescription, which considers both the medical and the refractive components of the eye exam and promotes healthy sight.

Step 3 creates a **patient education** program. This leads to



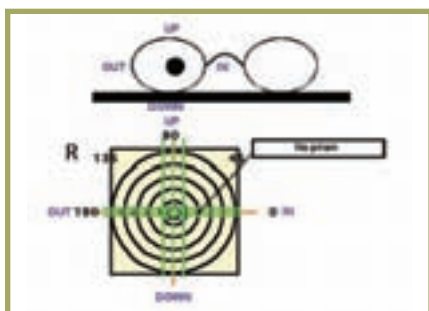
increased public awareness of the importance of healthy eyes and good sight and the most effective ways to safeguard and preserve them.

The final component of HSC relates to heightened practitioner and patient awareness of the importance of healthy sight and the best ways to promote it for a lifetime. Major ophthalmologic and optometric associations worldwide have been active in recommending to their members schedules for routine vision care and in promoting screening programs for preventive eyecare, with special emphasis on high-risk groups (i.e., diabetics) and high-risk ocular diseases (i.e., glaucoma).

The Prescription

Prism Made Easy

When checking a prescription, most opticians have an easy time finding and dotting a lens optical center. The center of the lensometer target is moved until it is in the center of the eyepiece reticle.

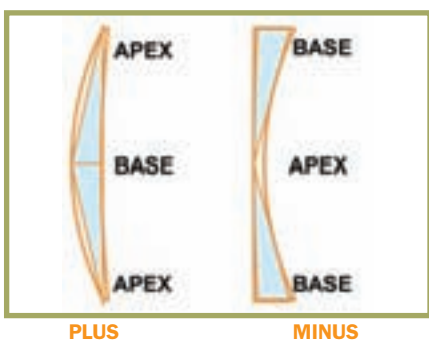


Centered, No Prism

Often the prescription that includes prescribed prism ends up passed to someone else with the words “Here, you do this.” It’s really just as easy to center a lens on the point of prescribed prism as it is to center it at the optical center.

Prism is required when the line of sight must be changed to ensure binocular vision i.e., one fused image from both eyes. Prisms are used to move an image depending on whether the patient has a phoria (tendency of the eye to turn) or tropia (meaning to turn).

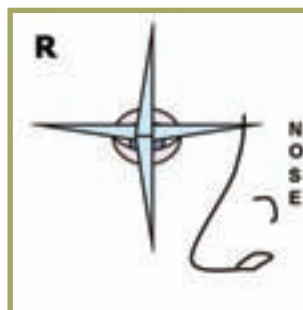
When a prescription specifies prism, it specifies the amount of prism in prism diopters and the direction of the base (thickest part) of the prism. Remember, all lenses are prisms i.e., plus lenses are two prisms base to base, minus lenses are prism apex to apex. The place where the prisms join is the point of no prism i.e., the optical center.



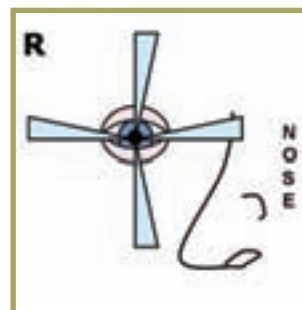
PLUS

MINUS

When patients look through plus lenses, the base is located at the optical center; in minus lenses, the base is located at lens edge away from center. The place where prisms join is the point of no prism.



NO PRISM

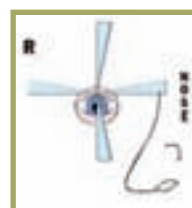


NO PRISM

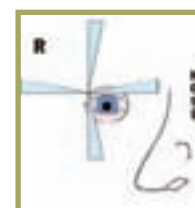
The illustrations below show the location of the base in prescriptions with prescribed prism.



BASE UP

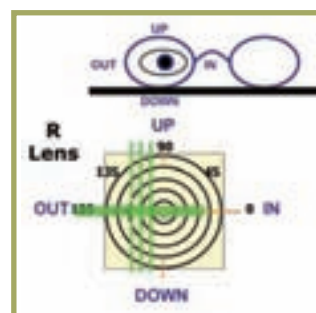


BASE DOWN



BASE IN AND DOWN

Verifying prescribed prism is simple; locate the target center, the point where the mires cross at the point of prescribed prism. The target always moves in the direction of the base and position is dependent on whether its a right or left lens. For example, in a right lens, 2Δ base out would look like this.

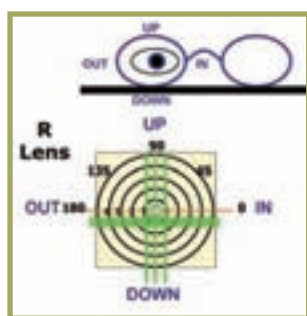


2Δ BASE OUT

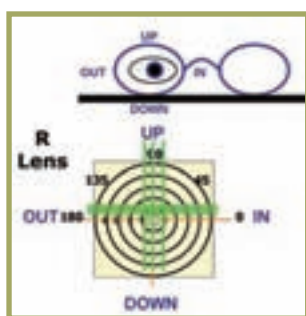


The illustrations below show the location of the base in a variety of prescriptions with prescribed prism. Remember the location of base in or base out is determined by right and left. In is always on the nasal side and out is always on the temporal side of center.

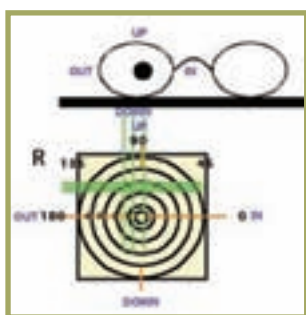
Locating and verifying prism becomes more difficult when the target is at an oblique axis and even harder to visualize when there is a cylinder axis and it too is oblique. At axes near 90 and 180, the vertical and horizontal lines help to align the location of the prism. In cylinder lenses the sphere and cylinder lines are visible separately and the target center and point of prescribed prism must be estimated. Excellence comes from practice.



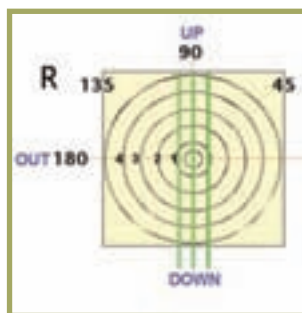
1△ BASE DOWN



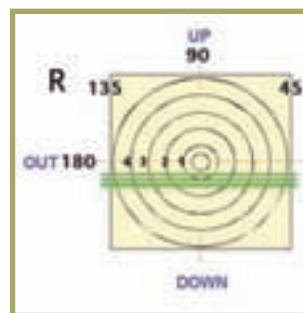
1△ BASE UP



0.5△ BASE OUT AND
2.5△ BASE UP



CYLINDER LINES

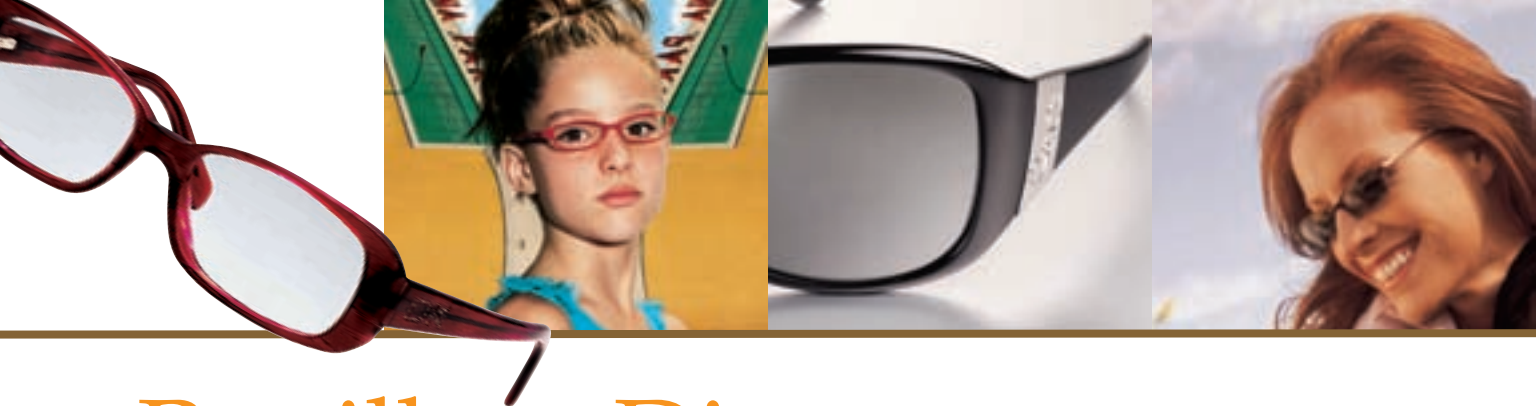


1△ BASE DOWN

In non prism prescriptions the optical center or point of no prism is located at the patient's pupillary distance (PD); in prescriptions with prescribed prism, the point of prescribed prism is located at the PD.

FACTS ABOUT PRISM

- Usually horizontal prism is either base in (BI) in both eyes or base out (BO) in both eyes.
- Usually vertical prism is downward in one eye and upward in the other.
- When the prism indicated by the Rx varies from what is "usually" done, a call to the prescribing doctor may help you avoid making an error in ordering.
- When horizontal prism—base in (BI) or base out (BO)—is specified, try to avoid decentration as much as possible by careful frame selection.
- When vertical prism, base up (BU) or base down (BD) is specified, avoid using a frame with a deep (large B measurement) lens shape.



Pupillary Distance and Segment Height

Use the following table for lens horizontal and vertical centering requirements.

PD, OC & SEG HEIGHT TIPS

LENS DESIGN	PD (PUPILLARY DISTANCE)	OPTICAL CENTER, SEGMENT AND FITTING CROSS HEIGHT
SINGLE VISION <ul style="list-style-type: none"> Spherical or aspheric design 	<ul style="list-style-type: none"> Distance or Near Monocular PD as required Monocular PDs are recommended for aspherics 	<ul style="list-style-type: none"> OC or PRP along frame midline If eye very high in a large B measurement frame, consider vertical decentration placing the OC 5mm below pupil center
PROGRESSIVES	<ul style="list-style-type: none"> Monocular Distance PDs 	<ul style="list-style-type: none"> Fitting Cross (FC) fit at pupil center Specify dissimilar fitting heights when required, order to the nearest 0.5 mm The Prism Reference Point (PRP) is located 2, 4 or 6 mm below the FC as specified by the manufacturer Verify near PD for any convergence issues
NEAR VARIABLE FOCUS OR COMPUTER LENSES	<ul style="list-style-type: none"> Monocular Near PDs 	<ul style="list-style-type: none"> Use the manufacturer's recommendation
BIFOCALS <ul style="list-style-type: none"> Flat Tops, Round Segs 	<ul style="list-style-type: none"> Binocular PDs Unequal decentration look wrong cosmetically Use Monocular PDs only in extreme cases 	<ul style="list-style-type: none"> Segment height as measured Usually equal seg heights R/L eye OC or PRP along frame midline Fit to the top of the lower lid
TRIFOCALS <ul style="list-style-type: none"> Flat Tops 	<ul style="list-style-type: none"> Binocular PDs Unequal decentration looks wrong cosmetically Use Monocular PDs only in extreme cases 	<ul style="list-style-type: none"> Segment height as measured Usually equal seg heights R/L eye OC or PRP along frame midline Fit to bottom pupil margin

Techniques and Technology of Frames

New Memory Metals

2006 saw the introduction of new memory metal frame collections. Shape Memory metals were developed by NASA for the space industry and have been used in a variety of applications like bioengineering, artery and vein reinforcement, as dental wire and, as we know, eyeglass frames.

Using memory metal plates to mend broken bones uses body heat. That heat causes the metal to want to contract to its original shape and when attached to bone ends, presses the fracture together so the bones can knit.

Eyewear frame memory metals are Nickel Titanium alloys that demonstrate great super-elasticity. That means they prefer to be in the shape and position of the way they were formed. If bent they return to their original shape. Temples and bridges are created in memory metals for stability and

it improves the fit of eyewear. When these temples are bent, a molecular shift takes place; a higher energy state is created. This state is unstable at room temperature. The metal always seeks a lower energy state so the temple changes back to the previous form. Therefore, the temple returns to the original “memorized” shape.

Memorize eyewear by Luxottica uses this super elasticity to create maximum flexibility in a frame

for better fit, optimum comfort and greater durability. Combined with fashionable styling, dispensers can meet a variety of tastes and lifestyles.



Suggest to patients “With memory frames like Memorize, you can be assured of a frame that lasts longer and retains its shape for the life of the prescription. In fact, since these frames stand up to the toughest, most active wearer, they are perfect for any patient concerned with the accidental twisting, turning or bending of their eyewear.”

Adjusting and Repairing Rimless Mountings

“No fear” adjusting with drilled lenses is possible and that horrible “snapping” sound of a broken lens can be avoided. The key is a rimless bracing plier. It will stabilize or brace the lens and mounting, and allow a variety of adjustments and increased confidence with rimless.



The **bracing plier** braces critical stress areas. One jaw pivots to compensate for lens curve and is positioned on the back of minus lenses, on the front for plus. This prevents slipping off the lens while adjusting. The stable jaw is placed on the opposite side. With the bracing pliers in position, the frame is ready for adjustment.

OTHER KEY PLIERS

A **narrow double nylon jaw pliers**, which fits in the tighter curves of rimless and protects the front and the back of the frame. Nylon and metal jaw gripping pliers should be available in two varieties; one protective jaw and one thin, flat metal jaw that fit into tight areas and an extremely thin round tapered metal jaw. Most offices have a wide jaw angling plier to change pantoscopic angles.





ADDING FACE FORM



Two pliers are used to make the face form bridge adjustment (top left). Brace where the hardware passes through the lenses (this removes the stress on the lens when the bridge is adjusted). Use the **double nylon jaw gripping pliers** to angle the bridge so the curve is more “inward” or as needed. The adjustment should be made on both sides of the bridge. Use two pliers to align lenses.



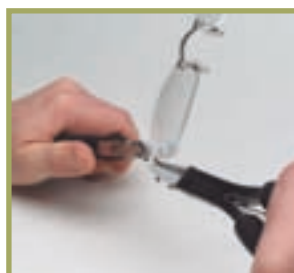
NOSE PADS AND TILT



Most pad arms are soldered to the back of the bridge. The **bracing plier** firmly holds the frame while manipulating the nose pad or pad arm.

TEMPLE TENSION

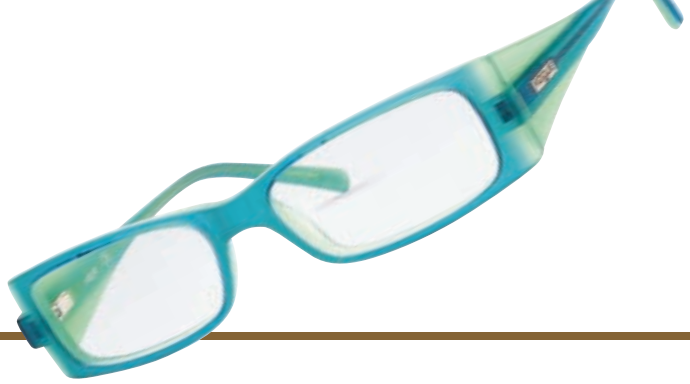
To adjust the end piece, inward or outward; brace the mounting and increase or reduce the curve of the end piece. The end pieces should be angled about 90 degrees from the front. Make adjustments with **flat/ round pliers** since the round post will not kink the metal and create a point where it will break. This works on titanium frames also. Use the **double covered plier** to adjust pantoscopic angle.



TIGHTENING LENSES

Rimless mountings will ultimately become loose where the lens is mounted to the frame. Tightening the fasteners in a screw and nut mounting is straight forward; often all that is needed is an **optical wrench** to tighten the retaining nut. Be sure all washers and bushings are correct; leave nothing out. Adding a **cap nut** can keep the first nut from loosening. In the case of a compression/tension mounting a rimless compression/ bracing plier can be used to squeeze the fasteners down tight to the lens. However, it is probably better to replace the bushings. Remember to use manufacturer’s original parts.





NYLON SEMI-RIMLESS



To more easily remove lenses, rotate the lens slightly in the frame until a space opens and push the **ribbon** through the opening. Slide the ribbon to the least sharp corner and pull it out and down so the nylon line exits the groove.

Work the line out of the groove until the lens can be removed. Packing type plastic tape cut to a sharp diagonal at the end works best as the ribbon can fray and leave threads in the groove.

To replace lenses, place the frame runner into the top and side grooves while supporting the frame top and lens with your fingers. Place the nylon line into the groove of the sharpest corner first and while pulling outward pull the tape toward the rounder corner until all the line fills the groove. Slide the tape to the bottom center of the lens and remove the tape.

Explaining Frame Quality

Patients often ask: "Why is the price of those two frames so different; they look the same to me?" The answer is often an explanation of quality. So, what makes for a quality frame?

Explain to patients there are different qualities in terms of durability, consistency of finish and manufacture, company reliability and style appeal. Moreover, the frame must reliably hold prescription lenses correctly. So, this answer forms the way that you should also consider the frames for your office. When choosing frames, look beyond style for each of the following characteristics.

For plated frames, ask

about plating thickness and retention i.e., its ability to resist damage, peeling or crazing. Stress testing and X-rays of metal parts ensure consistency.

Temples must retain their shape for a correct eyewear fit and endure the constant opening and closing and the on and off that takes place over the life of the frame. Deformation tests and simulated closing test temple shape and hinge. For plastic frames, a test places the frame in a 60 degrees C oven to verify the material's resistance to deformation.

Many frames use a varnish coating to add luster and seal the material surface. It must endure repeated adhesive tape tearing tests over extended periods of time so the finish is lustrous for the life of the prescription.

Any coating or finish must be color fade and corrosion resistant to physical and chemical agents. So, simulated acid testing in a corrosion chamber and weather testing can prove maximum resistance to body and environmental acids as well as temperature, humidity and UV.

ISO standards require that materials are not flammable. Frames are placed on steel bars heated to 650 degrees C. This protects patients and provides non-combustible frames.

Lastly, the bridge and solder joints, lens retention and overall endurance should be tested by varying weights, pull tests and cycling to simulate the overall wearer handling and maximum strength of every frame element.

Answering the quality question competently improves patient confidence. A signature of quality and process is an ISO 9001 Quality Assurance award. Luxottica Group was the first worldwide manufacturer to receive certification that products meet and exceed every standard of quality and product performance.



Lenses

Materials, Design and Treatments

Clarity

“My lenses are just not clear or I don’t think I see as well as my original glasses.” Ever heard this from a patient?

Clarity is critical to good vision and there are many factors that affect the clarity of lenses. Lens clarity can be affected by Abbe, scratches, poor surfacing, surface reflections from a lack of an AR treatment and reflections from edges or edge polish. Of course, the prescription may also be slightly off due to a combination of processing tolerances and the final responses by the patient on the day that they were examined. Complaints about clarity are often a combination of some of the above.

While Abbe Value is an indicator of light dispersion or chromatic aberration and should be considered when describing the technical effects of materials, in a practical sense, it is rarely a problem in eyewear today. Nearly half the lenses sold successfully in the U.S. today have lower Abbe values. In fact, much of the success of rimless is due to the availability of high-quality polycarbonate and high-index materials and processes. Therefore, it suggests that the real problem with lens clarity is in other things such as the lack of AR, incorrect base curve usage, processing inconsistencies or use of a less than optimum lens design. As in all materials there are compromises and when explained, the benefits of thinner, lighter and 100 percent UV absorption, high-index materials are a better solution for patients.

“To improve clarity, all patients should be presented with the benefits of AR lenses.”

So when changing a patient from a higher Abbe to a lower Abbe lens material, the very sensitive patient may say, “I don’t think I see as well.” The benefits of thinner, lighter and UV absorption, almost always outweigh the minimal change to the field of vision. In fact, it should be noted this is rarely detected by the human eye.

Lack of AR has a larger affect on reducing lens clarity. Surface reflections produce distracting glare. In each case below, clarity is reduced by lens reflections. To improve clarity, all patients should be presented with the benefits of AR lenses.

Sometimes, the addition of AR is all that is needed to make a patient happy in any high-index material. So recommend AR to every patient.

Scratches are self explanatory; they scatter light and make it difficult to see through the lens.

Material	Index (rounded)	Percent Reflection (Front and Back)
Hard Resin	1.50	~8.0%
Polycarbonate	1.59	~11.0%
High Index	1.67	~12.5%
Ultra High Index	1.74	~14.5%

Poor surfacing or polishing often results in a fuzzy lensmeter target. Therefore, you can use the quality of the mires in the lensmeter to determine lens quality.

Lastly, clarity can be reduced by the occasional “glint” or reflections from polished edges and the internal reflections of lens edges when non AR lenses are used. If patients are bothered by edge reflections remove the polish with an emery



board (the foam centered kind and fine emery surface). It's not even necessary to disassemble the glasses. To remove internal edge reflections, be sure to use AR lenses.

LENS MATERIALS

Polycarbonate lenses provide a unique combination of benefits that make it the ideal choice for active lifestyles and provide patients with superior comfort and performance. For instance, Airwear lenses from Essilor are made from a unique proprietary polycarbonate designed for use as spectacle lenses. The family of polycarbonate formulations provides many diverse products; from DVDs and Appli iMacs, to many aesthetic applications, including lenses.

Polycarbonate lenses are 43 percent lighter and 10 times more impact resistant than standard plastic lenses, so they have the lightness and strength needed in a lens while also providing the enhanced comfort and cosmetic appearance desired. In fact, weight/lightness was rated as the most important quality of a lens in a recent consumer survey.

High-Index Lenses

"Up to 50 percent thinner and lighter than your current lenses." Imagine saying that to patients who want the thinnest, most comfortable and flattest eyewear. A wider range of patients benefit from high index and powers as low as -2.00 are significantly thinner and flatter than standard plastic. For the patient who wants the best in the high-index category, prescribe 1.74.

In consultation with the patient, suggest Thin & Lite 1.74 and 1.67 as the new alternative to existing high-index lens wearers. No bottom selling here—sell from the top down. Be sure to detail all the material, design and treatment benefits of this lens and present it as a package of the very best. Continue to use 1.67 as the highest index for drilled rimless.

Wearing Now...	New Lenses...	Patient Benefit
Plastic 1.50	Ultra High Index 1.74	Up to 50% thinner and lighter
Plastic 1.50	Ultra High Index 1.67	Up to 40% thinner and lighter
Plastic 1.50	Polycarbonate 1.59	Up to 25% thinner and lighter
Glass	Polycarbonate 1.59	Up to 40% thinner and lighter



WAVEFRONT TECHNOLOGY

Wavefront technology can offer patients improved clarity over the best refraction they've currently had. Through Wavefront Technology, Essilor has adapted the technology used in laser surgery to correct vision by detecting and even eliminating many surface distortions to perfect progressive lenses. For the first time, Varilux engineers can analyze the entire beam of light entering the pupil—not just a single ray—and identify distortion and compensate for it—controlling the quality of the wavefront passing through the lens to achieve optimal acuity. Wavefront Technology uses patented, proprietary software in both lens designs to scan the entire surface of the lens, calculating the targeted optical function for each gaze direction.



VARILUX PHYSIO

Varilux Physio is designed for most patients, including those who are new presbyopes and those already wearing Varilux lenses. Through Wavefront Technology, Varilux Physio utilizes a front side design and digital surfacing on the molds. Varilux Physio offers improvements in all fields of vision:

- **Distance** – Aberrations controlled
- **Mid-range** – 30 percent wider intermediate field of vision
- **Near** – Greater comfort, the most accurate, natural vision
- **Low-light** – More contrast and precision, unmatched sharpness

VARILUX PHYSIO 360°

Varilux Physio 360° is designed for the discerning patient who wants the most advanced progressive vision, individuals with more complex prescriptions and those who have not adapted to other progressive addition lenses. Varilux Physio 360° offers the ultimate in progressive precision. Wavefront Technology is applied to both the front and back of the lens with 360° Digital Surfacing, which minimizes distortions and preserves and enhances the effectiveness of the front design. Essilor has developed 360° Digital Surfacing, which combines a patented calculation engine to optimize design, as well as a patented digital surfacing manufacturing process to produce the back side surface of the lens.

"Research indicates that even hard-to-fit wearers adapt easier to Varilux Physio," says Gilles Le-Saux, research and development optics director of Essilor International. "More than 2,000 wearers have already tested Varilux Physio and approved



its superiority versus existing PALs for all visual criteria.” Varilux Physio and Physio 360° are available to all independent eyecare professionals. For more information, please contact your local Essilor sales representative or visit www.varilux.com.

SPECIALIZED PROGRESSIVES

VARILUX ELLIPSE

With a fitting height as low as 14 mm, bring unmatched Varilux performance to even the smallest frames. A completely natural eye movement reaches near vision quickly and easily. Easy to fit due to a wider area for comfortable, natural vision.

PERSONALIZED PROGRESSIVES

VARILUX IPSEO

Varilux Ipseo lenses have no preconceived design and utilize each patient’s unique visual behavior. Eye Movers benefit from up to a 60 percent wider gaze areathan a Head Mover. Head Movers benefit from up to a 30 percent smoother periphery.

With the VisionPrint System you can offer patients a lens tailor-made for their own physiological movements. Available in three progression lengths to fit any type of frame.

More About Personalized Progressives

Personalized progressives offer a custom approach to the wearer’s visual and physiological habits. Using a variety of refined technologies, a progressive lens can be created that mirrors the way a wearer uses their eyes for a required frame size and fitting height. The result is a lens for the patient who wants the best in the category of progressives.

The manufacturing technology is called digital surfacing i.e., a numerical file controls the cutting height of the lens surface generated and creates a progressive of specified design. For example, Varilux Ipseo integrates an individual’s physiological measures of head and eye movements and prescription parameters into a personalized, custom made progressive. Combined with the Vision Print System (VPS), a diagnostic device that measures head and eye movements, Ipseo progressives can be optimized for that patient’s vision needs.

This technology starts with a single vision “blank” and transforms it into the tailor made design required. Varilux Ipseo is available in Thin & Lite 1.67, 1.59 and 1.50 material, which include Crizal Alizé with Clear Guard in clear and Transitions.

PROGRESSIVE ADDITION LENS (PALs) FITTING TIPS

STEP 1—ADJUST THE FRAME

Make sure the frame is properly adjusted on the patient before taking any measurements. Set the vertex distance between 12 and 14 mm and the pantoscopic tilt angle between 8 and 12 degrees. The frame should have positive facial wrap.

STEP 2—TAKE THE PATIENT’S INTERPUPILLARY DISTANCE (PD)

Exact alignment of the progressive lens, beginning with an accurate PD, is a must for far and near vision.

To ensure maximum accuracy, use a Corneal Reflect Pupillometer, which obtains both binocular and monocular PD in a single procedure. Use one measurement to verify the other: The monocular PD, when added together, must equal the binocular PD. If not, new measurements should be taken.

STEP 3—TAKE FITTING HEIGHT MEASUREMENT

Accurate vertical positioning is important. In an adjusted frame, a lens positioned too high or too low may limit the field of vision as the eye moves. To deliver uninterrupted power change and to ensure comfortable near vision, follow the recommended minimum fitting height. If the selected frame does not accommodate this height, edging may remove a valuable portion of the usable reading area.

Take a monocular height measurement by marking each lens at pupil center using a felt-tip pen. Draw a horizontal line on each lens and verify that the lines are crossing the center of each pupil.

If the measurement was taken at the dispensing table, ask the patient to stand and fixate on an object in the distance. Observe the positioning of the horizontal line to be sure it intersects the pupil.

Check the fitting height by measuring from the deepest point of the lens to the pupil center. Be sure to be at the same level as the patient to avoid parallax error.

STEP 4—CHECK LENS CUTOUT

Double check fit. Mark the patient’s fitting height and PD on the sample lens, creating a cross. Place the lens cross over layout chart cross to verify that the lens will cut out. If it doesn’t fit, choose another, more suitable frame.

Choose and Use Sunwear More Effectively

When patients choose quality plano and prescription sunwear it satisfies patient needs and builds business. Prescription sunwear is essential for eye health and comfort in all outdoor activities. And remember, dispensing multiple pairs grows business.

According to Jobson Research's Sunwear Survey of Independents 2005, not every age group is buying prescription sunwear equally, there are few offices participating in prescription programs for branded sunwear and the sun lens material mix mimics the overall marketplace. This highlights a number of opportunities to match technology with need.

Everyone Needs Quality Sunwear

The benefits that quality plano and prescription sunglasses offer your patients are numerous. Be knowledgeable of frame and lens options and translate them into the following patient benefits:

- **Brand Attraction:** Patients seek name recognized brands and they add personality to your office and your professional identity
- **Better Vision Outdoors:** Sun lenses, and particularly polarized sun lenses, reduce glare increasing depth perception, enhancing contrast and improving image sharpness
- **Comfort:** By reducing the amount of light that hits the eyes sunglasses reduce squinting
- **Health:** Quality sunglasses have 100 percent UV protection, protecting the eyes and the sensitive skin around the eyes from the sun's damaging rays
- **Safety:** Polarized sunglasses reduce glare, the number one most commonly stated reason for car accidents.
- **Optician and doctor recommended:** Professionally recommended or prescribed and all staff focuses on the importance of high-quality prescription sunwear

Brand Attraction

Brands add personality to your office and your professional identity. Patients shop branded eyewear especially in sunglasses. As a result, using quality name brand sunglasses improves the appeal of the dispensary and can increase the eye exam to eyewear capture ratio.

The road to prescription sunwear success starts with a large enough array of plano sunglasses. Patients view plano sunwear as a fun, cool, fashion accessory and are more likely to wear a pair of prescription sunglasses if they perceive they are getting a "real" pair of sunglasses in their prescription, rather than just a frame with dark lenses. Therefore, your dispensary should have a "Sun Center" with a substantial number of "real" Rx-able plano sunglasses in which patients can choose to put their prescription. Sun Centers like these are available from Luxottica and demonstrate

you are serious about being in the sunwear business.

Review the brands available and choose those designed for and targeted at different patient wants. For example, these brands are a good example of a diverse group targeted at different patient segments within your practice.

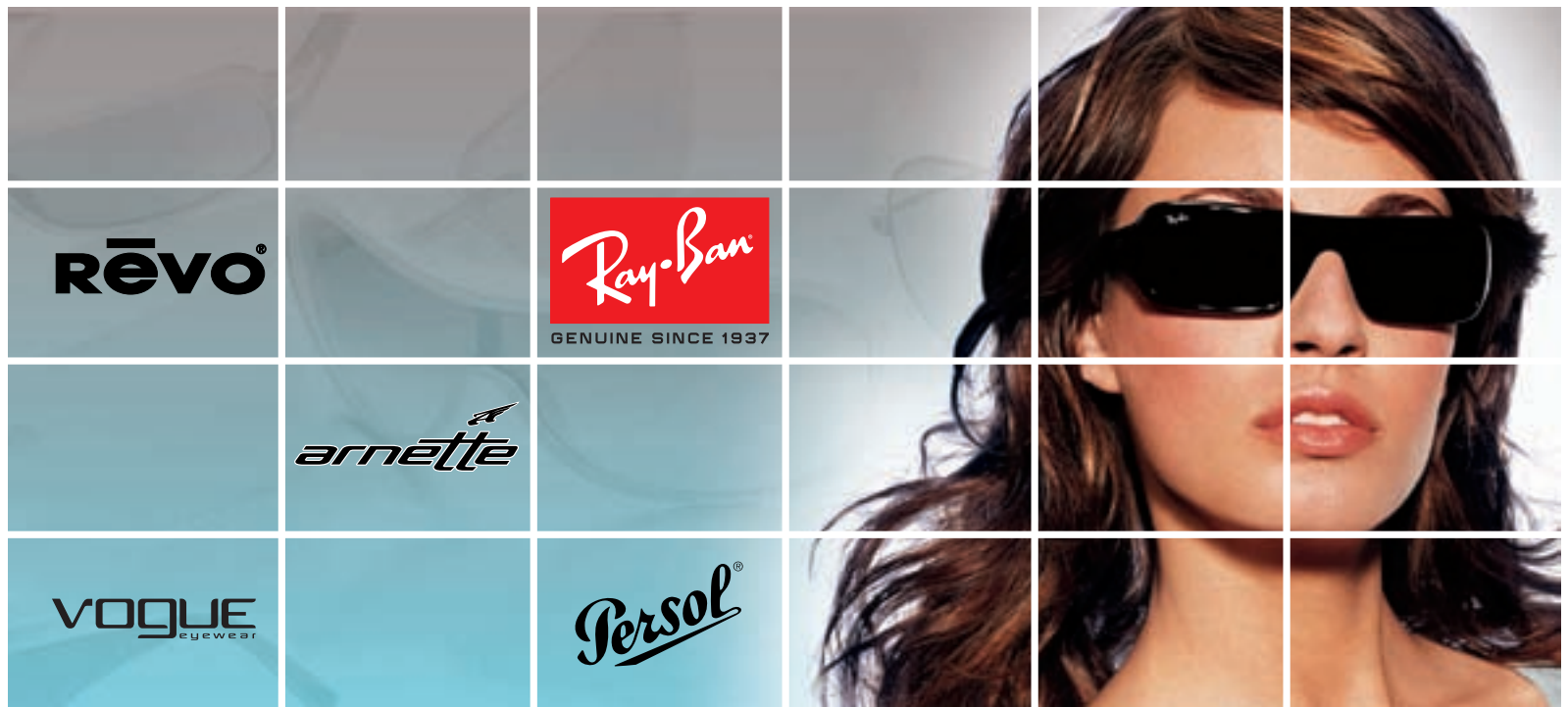


Revo – Specialized technology for high performance. Adapted from NASA multilayer film coatings, they selectively transmit light, enhance contrast, maximize visible light, reduce IR and UV and bounce back glare for golf, boating, skiing and fishing or in cases of light sensitivity after laser surgery.

Ray-Ban/Ray-Ban Junior– The World's most popular brand. Classic styling, seen on high-profile people, combined with the most popular premium lens for good looking and healthy sight. Plus a junior series designed for the smaller face.

Arnette – For hard core sports

WORKING TOGETHER



SUN CENTER

Join with Luxottica Group in a comprehensive sunwear program designed to ensure the continued eye health of your patients.

Sun Center features all the elements you need to promote maximum UV protection and make eye health cool, fashionable and fun: Powerful and prestigious sunwear brands. Extraordinary merchandising materials. Professional training seminars.

All this and more are a part of Luxottica Sun Center 2006: Working Together with you and your associates to help prevent UV-associated eye diseases.

Join us today by calling 1-800-422-2020.





enthusiasts or those that want to look like them. The benefit of this brand allows expansion into the young patient segment if not there or to fully meet needs of a segment already being served. Polycarbonate lenses provide the best in protection.



Persol – Described as timeless in style and sophistication.



Use brands like this where there is already brand loyalty to the silver arrow styling and the use of AR lenses in glass and plastic.

Vogue – High style, high value. Some sunwear brands

must meet seasonal fashion trends so use a brand like this to be contemporary with changing styles.

Take a look at the sunglass area within your office; does it say



that you are serious about sunwear? If not, add a Sun Center.

Better Health, Better Vision Outdoors

Glare knows no season so recommend glare protective eyewear to all patients all year round. In this case, sun lenses protect the patient from discomforting, disabling and blinding glare. Medium to dark tints address the first two while polarized lenses eliminate blinding glare.

In the age groups young adults (17-34), adults (35-44), mature adults (45-54) and seniors (55+), independents report adults (35-44) purchase over half the prescription sunwear sold. As we know, UV protection is critical in young adults and for the aging eye so all categories should be reminded that prescription sunwear can be 100 percent UV protective. The best materials to ensure virtually 100 percent UV protection in all conditions where UV is in excess are polycarbonate, high- and ultra-high index, photochromics and polarized lenses. Also, since most UV damage occurs before the age of 18, it is important to get sunglasses on kids so start right from the examining chair to have sunwear recommended. Hard resin can be made 100 percent absorptive by using a UV attenuating and coloring dye.

UltraViolet Absorption

Best (~100%)

Better (~96%)

Good (~90%)

Worst (~39%)

Prescription Lens or Material

Polycarbonate, high index, Ultra high index, Transitions
All polarized

Mid Index

Prescription Hard Resin

Crown glass










Next, only a third report participation in branded prescription sunwear programs. Matching branded eyewear and its own special technology of design, color and performance can improve sales by providing a more coherent story or sunwear package for staff. It's often easier to describe an integrated sunwear package i.e., lens design, material, back surface AR, front mirror and frame when the supplier puts it all together for you.

Lastly, while the report suggests that there is significantly less plastic being used for prescription sunwear (60 percent now vs. 74 percent a year ago) and poly is about 30 percent, the opportunity exists to create thinner and lighter sunwear while addressing increased UV and impact protection. Remember, adding options like thinner and lighter, UV and impact protection adds patient benefits and improves the bottom line.

Be sure to take advantage of the signage, displays, counter-cards and consumer booklets that inform and educate patients on the relationship between quality sunwear and eye health.

Ask every patient, “Do you play sports?” This allows the description of the risks of sports eye injury. Use the recommendations from various national health organizations like the National Eye Institute to show the importance of

eye protection. Doctor, write a prescription. Opticians, introduce the sport protective eyewear products and combine them with the most impact resistant lenses in polycarbonate.

ACTIVITY	RECOMMENDED COLOR(S)	RECOMMENDED MATERIALS, STYLE AND PRESCRIPTION
BASEBALL 	<ul style="list-style-type: none"> • Gray or Green • Polarized 	<ul style="list-style-type: none"> • Consider background, day or night games • Mirrors reduce the intensity of surface reflections and infrared for a cooler eye while standing in the field • Include back surface AR and impact resistant materials
CYCLING 	<ul style="list-style-type: none"> • Most Browns • Some Greens • Gray or Brown Photochromics • Red for vibrant and enhanced contrast 	<ul style="list-style-type: none"> • High contrast Brown and Green to see road hazards, high impact for safety • Polarized to reduce scatter and early AM road reflections, wrap protects from dust and wind • Low light — Yellow, Red or Orange • Photochromic for UV and the variable density feature
DRIVING 	<ul style="list-style-type: none"> • Gray or Brown • Polarized 	<ul style="list-style-type: none"> • Brown to brighten contrast • Polarized for safety to remove blinding reflections, AR for best clarity
FISHING 	<ul style="list-style-type: none"> • Brown, Amber and Gray • Polarized 	<ul style="list-style-type: none"> • Polarized works best • Gray is darker, brown enhances contrast • Low light, overcast or dusk try Amber
GOLF 	<ul style="list-style-type: none"> • Green and Brown 	<ul style="list-style-type: none"> • Polarized is a personal preference; some find it helpful, others not; always AR • Brown is the de facto color and density can be tuned to personal preference • Newer golf eyewear filters are green or lavender
MOTORCYCLING 	<ul style="list-style-type: none"> • Most Browns • Some Gray and Green • Photochromics • Polarized 	<ul style="list-style-type: none"> • High speed needs high contrast, high impact • Backside AR improves clarity and safety • Polarized may affect instrument visibility • Photochromics are great; caution may be needed when riding on bright, cold winter days when lenses get extra dark. Careful in tunnels with very dark lenses
SKIING 	<ul style="list-style-type: none"> • Yellow, Orange, Brown • Polarized 	<ul style="list-style-type: none"> • High contrast Brown, Amber or Brown-yellow lenses are best, high impact, wrap for high speed • Yellow, Orange, Vermillion (high VLT) for low light conditions • Polarized lenses can improve safety; they show ice as black, snow as white and gray
SWIMMING 	<ul style="list-style-type: none"> • Clear, Light Blue, Light Yellow 	<ul style="list-style-type: none"> • AR and flash mirrors are particularly good to diminish the reflection off water • For competitive swimming — clear lenses, flash mirrors and back AR
TENNIS 	<ul style="list-style-type: none"> • Yellow and Orange, Clear • Polarized 	<ul style="list-style-type: none"> • General purpose — Yellow tinted lens will pick up the Yellow ball better • Outdoors, Yellow will be too bright and allow in too much light, use Orange or Brown



Photochromic & AR Lenses

Transitions V Lenses with ESP

A question often asked about the latest Transitions product is how it compares with previous versions. Transitions V Lenses with ESP offer superior performance in higher indices (1.60, 1.67 and polycarbonate) than previous higher index technology allowed. They become as dark as sunglasses outside in sunlight. And the new proprietary dye system called ESP, Enhanced Scientific Performance, fades back nearly three times faster.* As a result, patients enjoy all the benefits of clear lenses indoors, while providing the most convenient way to help protect against UV rays and glare in all light conditions.

Transitions V Lenses with ESP are compatible with all major AR coatings. These AR coatings, like Crizal Alizé with ClearGuard, reduce distracting glare. Transitions Lenses with an AR coating transmit more light indoors and become just as dark outdoors.

Glare impairs vision. It happens when an object in the field of vision is brighter than the amount of light to which the eyes have adapted. As light conditions change, Transitions V Lenses adjust the level of tint to provide the right tint at the right time. When combined with an AR coating, they are the optimal way to protect patients' eyes from the effects of glare and are the optimal choice for everyday eyewear.

Photochromics can also enhance contrast. Contrast sensitivity is the ability to distinguish between an object and the viewing background. As light levels decrease, contrast also decreases. Photochromics improve contrast and enhance visual quality

2.8 times faster than Next Generation Transitions Brown, standard index

because the lenses change as light conditions change, optimizing the quality of vision under various levels of light.

Transitions V Lenses with ESP offer excellent variable tint benefits to all patients. This includes not only adults and children, but also special needs patients with heightened sensitivity to light due to diabetes, recent ocular surgery or certain prescrip-

Clear, dark, fast—use these words to describe the benefits of photochromic lenses.

tion medications. They can minimize eye strain and eye fatigue for comfortable vision in any light condition.

"Clear, dark, fast," is how Transitions describes the attributes of the new technology. How fast, dark and clear is illustrated in the two graphs on the following page. Now, when upgrading patients from hard resin to poly or high index, tell patients they can expect the same performance they enjoyed with plastic 1.50 index. Lenses get about 80 percent dark in the first minute and often so comfortably that patients have to be shown their lenses are actually working.

ESSILOR + TRANSITIONS

THE POWER OF FIVE

ENERGIZE AND OPTIMIZE TRANSITIONS® PERFORMANCE WITH ELECTRIFYING COMBINATIONS AVAILABLE ONLY FROM ESSILOR.

Five Industry-Leading Technologies.
Five Times The Performance.
Just One Choice. Essilor.

Plug into the combined power of Transitions® and leading brands by Essilor to make the world's most advanced photochromic technology even better.

Combine Crizal Alizé with Clear Guard™ and Transitions for superior fade back and unsurpassed lens performance.

Now available in Varilux Physio™

Only the combination of Varilux® and Crizal Alizé with Clear Guard™, with Airwear® or Thin&Lite® 1.67 in Transitions creates the most trusted, most recognized, and most advanced lenses in the world.

Plug into the power and see for yourself.

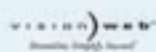
Transitions®

VARILUX®

Crizal ALIZÉ
with CLEAR GUARD™

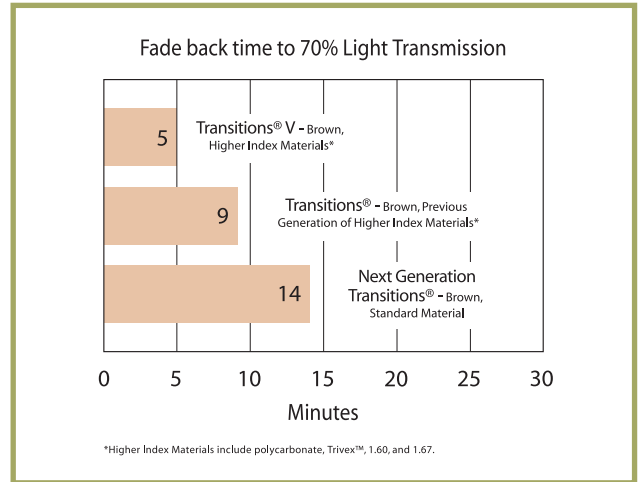
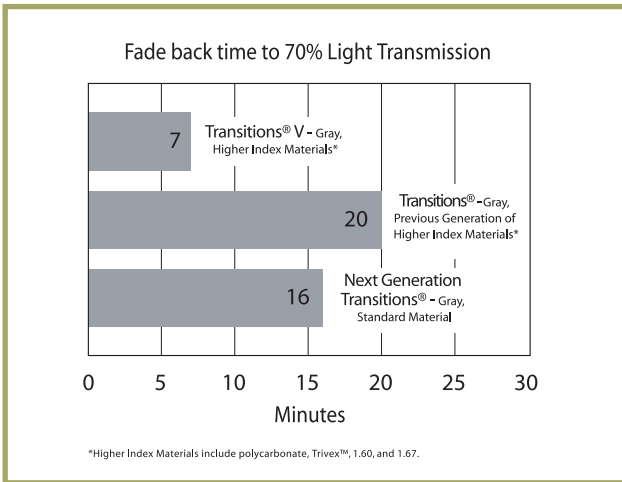
Airwear®

Thin&Lite 1.67 ①



Transitions®

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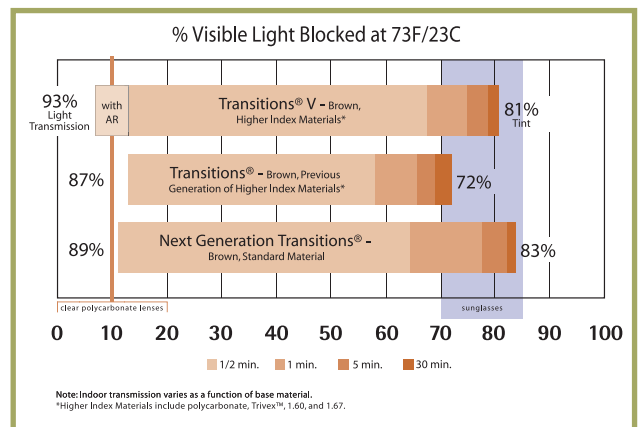
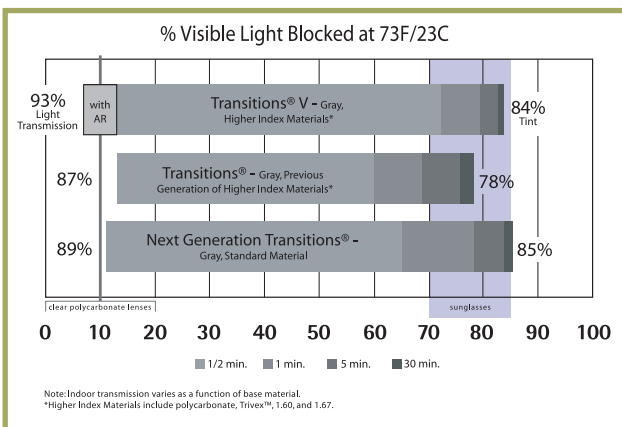


Lenses fade to 70 percent transmission or 30 percent dark in about five to seven minutes, which easily meets patients expectations for fast clearing.

Compatible with AR and Hard Coatings

Patients prefer the combination of AR and photochromics. So combine them together for highest patient satisfaction and anticipate their questions at the time that lens treatments are being discussed. For example, AR improves the clarity of vision in Transitions lenses, up to 6 percent from 89 to 95 percent.

Demonstrate lens darkening and fading, show how surface reflections virtually disappear when looking at the glasses and when on, they can see the world and their own eyes more clearly. This is especially critical for the senior patient, the clearest lenses at night for better vision and darkness as needed and 100 percent UV absorption for indoor or outdoor activities.



Lenses get about 80 percent dark in the first minute and often so comfortably that patients have to be shown that their lenses are actually working.



AR Lenses

Why AR?

Anti-reflective lenses are essential for best vision. Yet, despite recent advances in AR, seven out of 10 patients still aren't experiencing the benefits of this essential technology. Without AR, 8 to 14 percent of light is lost due to reflections that create glare, leading to a loss of visual acuity and clarity. Combine that with all of the other obstacles to clear vision like smudges, dust, scratches and fingerprints and a patient's world is one big blur. That is why AR is essential for clear vision.

Not all AR is created equal. To have the clearest vision possible, your patients need the best AR to repel the obstacles to clear vision. Compare transmission, invisibility, durability, cleanability and anti particulate properties

Transmission—Premium AR allows up to 99 percent of light to reach the eye, which helps reduce eyestrain and fatigue while

providing crisp, clear vision. Improved visual acuity improves safety, especially while driving at night when reflections and halos can hinder a patient's vision. AR improves reaction time to unexpected situations and the ability to identify persons and objects from a moving vehicle.

Invisibility—AR also makes the lenses nearly invisible. Have you ever noticed that some people's glasses seem to have no lenses in their frames and you can see straight into their eyes? With others, you have a hard time seeing their eyes because you see reflections or even other images in their lenses. AR eliminates annoying reflections and allows patient's eyes to be seen. Patients feel better because they look better.

Durability—A basic foundation of AR is a good scratch coat. AR lenses can have varying levels of scratch resistance and as a result poor performance. A durable and long-lasting AR offers

scratch protection on both sides of the lens. Since 40 percent of scratches occur on the back side of the lens, it makes sense to offer an AR that provides full scratch protection on both sides of the lens. This way, your patient's investment is fully protected and can withstand the demands of everyday wear and tear.

Cleanability—A leading complaint among patients that tried AR years ago is that lenses are difficult to clean. Some AR lenses today have advanced hydrophobic topcoats to help make cleaning a breeze. This leads to increased patient satisfaction and repeat purchases.

COMPARISON OF VISUAL RECOVERY TIMES

Without Antireflective Coating

Myopes 10 secs
Hyperopes 8 secs

With Antireflective Coating

Myopes 5 secs
Hyperopes 6 secs

Gain

Myopes ~5 secs
Hyperopes ~2 secs

When patients are tested for reaction times during night driving simulations, the clarity of AR lenses allow patients a faster reaction time to adverse visual conditions. AR lenses can improve critical vision at night.



Anti Particulate Technology—New anti-particulate technology repels smudges, dust, dirt and fingerprints. This technology makes lenses even easier to clean and allows lenses to stay cleaner longer because dust, dirt, water and oil aren't attracted to the lens. Less cleaning means fewer scratches and even clearer vision.

Every patient deserves the clearest vision possible and to experience the benefits of AR. Convey the benefits of Crizal Alizé with Clear Guard to patients by wearing it yourself and the doctor should discuss AR throughout the examination. Eighty percent of patients say that their eyecare professional is key to influencing the purchase of AR. Ninety four percent of AR wearers say they would repurchase so once you get them into AR they're hooked.

AR and Sun Lenses — providing the best

Always teach patients that sun lens performance can be improved with anti-reflective treatments. Minimally AR the back of the sun lenses. Here's why:

A dark lens is a mirror and the darker the lens, the more surface reflection. The critical side is the back of the lens. As a concave surface it acts like a make-up mirror i.e., magnifies the size of any reflections off the back surface. Additionally, the higher the minus power, the steeper the back curve and the more magnified the reflections. So, order back surface AR with sun lenses to remove back surface reflections.

Opticians often ask whether front surface AR is important. There are fewer "annoying" or "highly visible" front surface reflections but any surface reflection impedes vision. Sun lenses are darker in density to reduce or absorb light but that is different from impeding light by surface reflections. Surface reflections create glare and can reduce acuity. AR coating the front surface produces a lens with crisper sight and enhanced transmission. Consider adding a mirror to the front surface to improve performance.

Mirrors today are available in three general varieties i.e., flash, bi layer and dielectric. The differences are in the transparency of the mirror. The least reflective are flash mirrors, somewhat more reflective are the multi color sports mirrors and last are totally reflective or one way mirrors.

A flash mirror treatment is applied to the front side of the lens. In addition to being stylish, mirrors provide additional comfort and protection for people sensitive to light, beyond the light absorp-

tion of tinted lenses. Flash mirrors may also add about 10 to 15 percent darkness to the way the lens sees so learn the effects of the mirrors that are ordered.

The ELOA Flashback mirrors include a super-hydrophobic top-coat on both sides to make the lens easier to clean and repel water, dirt, oil and smudges. TD2 scratch protection and back-side AR is included. Flashback Mirrors are available in brown and black tints with flash mirror colors in gold and silver, and multiple tint grades. The treatment can be applied to any lens design and lens material compatible with Crizal or TD2.



ECPs have a need for a polycarbonate tint they can rely on that will not fade over time yet still provide the sun protection and features that they rely on Essilor for. PhysioTints provide a "truer" color representation that does not shift colors like some tints and for the first time the tint "soaks" into the lens, not the coating or surface of the lens thereby avoiding fading or peeling.

Physiotints come systematic with Crizal Alizé and provide 100 percent UVA and UVB protection. They are available in the following colors and gradients.

- Colors
 - Gray
 - Gray Green
 - Black
 - Brown
- Tint Grades 0 – 3

New
Crizal Alizé with
Clear Guard™

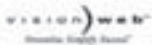


Makes every day
a clear day

The best AR lens just got better

New, Crizal Alizé with Clear Guard technology creates a smart lens that repels dust, fingerprints, oil, grease, and water better than it ever did before. These new lenses are even easier to clean and stay cleaner longer, allowing for the enduring clarity patients need to view the world around them. What's more, the unique, technologically advanced system behind Crizal® Alizé™ still delivers the industry-leading clarity and durability you and your patients have come to expect.

Recommend Crizal Alizé with Clear Guard, the only lens that makes the clearest even clearer.



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www.crizalpro.com

Crizal ALIZÉ
WITH CLEAR GUARD™

See Better. Feel Better.



Putting it all Together

ANSI Z80.1 — 2005

American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates voluntary standardization guidelines for a large number of industries. The Z80.1 committee is made up of a group of optical and ophthalmic organizations and associations and the government. It works to ensure that an agreed standard is provided to protect the patient yet able to be manufactured economically.

There have been two changes to the ANSI recommended tolerances for finished eyewear for 2005.

This is a summary of the principal optical and geometrical tolerances, ANSI Z80.1-2005, American National Standard for Ophthalmics—Prescription Ophthalmic Lenses. This includes both mounted and unmounted tolerances for single vision and bifocal lenses and progressive addition lenses. The full version of this document is available online and can be purchased from ANSI's eStandards Store.



GENERAL TOLERANCES FOR SINGLE VISION AND MULTIFOCAL LENSES

MEASUREMENT	POWER RANGE	TOLERANCE
HIGHEST MERIDIAN* POWER	0.00 D, ± 6.50 D $> \pm 6.50$ D	± 0.13 D $\pm 2\%$
CYLINDER POWER	0.00 D, ≤ 2.00 D > 2.00 D, ≤ 4.50 D > 4.50 D	± 0.13 D ± 0.15 D $\pm 4\%$
CYLINDER AXIS*	> 0.00 D, ≤ 0.25 D > 0.25 D, ≤ 0.50 D > 0.50 D, ≤ 0.75 D > 0.75 D, ≤ 1.50 D > 1.50 D	$\pm 14^\circ$ $\pm 7^\circ$ $\pm 5^\circ$ $\pm 3^\circ$ $\pm 2^\circ$
ADD POWER	+4.00 D $> +4.00$ D	± 0.12 D ± 0.18 D
UNMOUNTED PRISM AND PRP	0.00 D, $\leq \pm 3.37$ D $> \pm 3.37$ D	0.33 1.0 mm
VERTICAL PRISM IMBALANCE	0.00 D, $\leq \pm 3.37$ D $> \pm 3.37$ D	± 0.33 Δ Total ± 1.0 mm Difference
HORIZONTAL PRISM IMBALANCE	0.00 D, $\leq \pm 2.75$ D $> \pm 2.75$ D	± 0.67 Δ Total ± 2.5 mm Total
VERTICAL SEGMENT HEIGHT		± 1.0 mm Each
VERTICAL SEGMENT DIFFERENCE		1.0 mm Difference
HORIZONTAL SEGMENT LOCATION		± 2.5 mm Total
HORIZONTAL SEGMENT TILT		$\pm 2.0^\circ$

GENERAL TOLERANCES FOR PROGRESSIVE ADDITION LENSES

MEASUREMENT	POWER RANGE	TOLERANCE
HIGHEST MERIDIAN* POWER	0.00 D, $\leq \pm 8.00$ D $> \pm 8.00$ D	± 0.16 D $\pm 2\%$
CYLINDER POWER	0.00 D, ≤ 2.00 D > 2.00 D, ≤ 3.50 D > 3.50 D	± 0.16 D ± 0.18 D $\pm 5\%$
CYLINDER AXIS*	> 0.00 D, ≤ 0.25 D > 0.25 D, ≤ 0.50 D > 0.50 D, ≤ 0.75 D > 0.75 D, ≤ 1.50 D > 1.50 D	$\pm 14^\circ$ $\pm 7^\circ$ $\pm 5^\circ$ $\pm 3^\circ$ $\pm 2^\circ$
ADD POWER	4.00 D > 4.00 D	± 0.12 D ± 0.18 D
UNMOUNTED PRISM AND PRP	0.00 D, $\leq \pm 3.37$ D $> \pm 3.37$ D	0.33 1.0 mm
VERTICAL PRISM IMBALANCE	0.00 D, $\leq \pm 3.37$ D $> \pm 3.37$ D	± 0.33 Total 1.0 mm Difference
HORIZONTAL PRISM IMBALANCE	0.00 D, $\leq \pm 2.75$ D $> \pm 2.75$ D	± 0.67 Δ Total ± 1.0 mm Each
VERTICAL FITTING POINT HEIGHT		± 1.0 mm Each
VERTICAL SEGMENT DIFFERENCE		1.0 mm Difference
HORIZONTAL FITTING POINT LOCATION		± 1.0 mm Each
HORIZONTAL AXIS TILT		$\pm 2.0^\circ$

ADDITIONAL MECHANICAL TOLERANCES

* NOTE: The highest of meridian applies to the principal meridian (Sphere or Sphere + Cylinder) with the strongest absolute power. For instance, the highest meridian of a prescription calling for -2.00 DS -1.00 DC 7 180 is: -2.00 + (-1.00) = -3.00 D. Summary, courtesy, Darryl Meister.

CENTER THICKNESS	When Specified	± 0.3 mm
BASE CURVE	When Specified	± 0.75 D
SEGMENT SIZE	For Multifocals	± 0.5 mm
WARPAGE		1.00 D



Resource Guide

An excellent source of information for you and a method to educate staff are trade magazines and continuing education courses applied to a focused curriculum. There are many reasons to develop a focused training program for oneself and staff. Of course they're needed when hiring a new employee; being well trained improves patient satisfaction, increases office efficiency, contributes to revenue improvement, ensures that new products, procedures or technologies are included, provides for personal growth and can improve morale.

Many ECPs use a curriculum to assign work as a method for review, promotion and salary increase. Have staff read, be tested and practice what was learned.

To set up a training program, define the areas of expertise to improve. Develop a training schedule. Create a library of magazines, provide access to the Internet and create assignments. Tie those assignments to the review and goal setting process. Successful completion and implementation shows staff how they can grow a practice and their own capabilities.

Visit 20/20 magazine and the Opticianry Study Center at www.2020mag.com. Use them to create a personal or staff training plan.

SOURCES OF CONTINUING EDUCATION

NATIONAL AND LOCAL TRADE AND ASSOCIATIONS MEETINGS

– see the Calendar on page 30.

TRADE PUBLICATIONS

- Jobson Publishing, LLC
- 20/20 Magazine
- www.2020mag.com
- Vision Monday
- www.visionmonday.com
- LabTalk, Frames Data, Inc.
- www.framesdata.com

Eyecare Business

www.visioncarece.com

Visioncareproductnews

www.visioncareproductnews.com

ONLINE CE SITES

- 2020mag.com
- Visionmonday.com
- Visioncarece.com
- Visioncareproductnews.com
- Opticaltraining.com
- Opticampus.com
- Quantumoptical.com
- schroederoptical.com
- soleducation.com
- marchon.com
- onlinecec.com
- seikoeyewear.com (CE Link)
- clsa.info/index.shtml (CE Link)
- nyssso.org/ContinuingEd
- ecp.acuvue.com/ce/intro.html
- laramyk.com/learn/ce.html
- jcahpo.org/ceopp.htm

NATIONAL ORGANIZATIONS

ABO/NCLE

www.abo-ncle.org
E-MAIL aboncle@opticians.org
 (703) 719-5800

Contact Lens Society of America

www.clsa.info/index.shtml
E-MAIL clsa@huskynet.com
 (703) 437-5100

National Academy of Opticianry

www.nao.org • **E-MAIL** info@nao.org
 (301) 577-4828 • (800) 229-4828

National Federation of Opticianry Schools

www.nfos.org
 (703) 691-8357

Opticians Association of America

www.oaa.org • **E-MAIL** aaa@aaa.org
 (800) 443-8997 • (703) 437-8780

Opti Board

www.optiboard.com
 Online Community for Eye Care Professionals



STATE ORGANIZATIONS

Florida

Professional Opticians of Florida
www.pof.org • (800) 972-2698

Georgia

Opticians Association of Georgia
www.oagonline.org
E-MAIL oag@oagonline.org
(770) 562-1114

Illinois

Opticians Association of Illinois
www.illinoisopticians.org
E-MAIL info@illinoisopticians.org
(800) 437-4476

Kentucky

The Society of Dispensing Opticians of Kentucky
www.gosdok.com
(606) 273-6469

Louisiana

Louisiana Association of Dispensing Opticians
www.lado.org
(888) 883-8722 • (504) 838-0312

Mississippi

Mississippi Association of Dispensing Opticians
www.mado.org • (228) 860-1825

New Jersey

Opticians Association of New Jersey
www.oanj.org • **E-MAIL** oanj@oanj.org
(609) 695-0030

Ohio

Opticians Association of Ohio
www.oao.org
E-MAIL gpkinginc@aol.com
(800) 661-5367

Oregon

Opticians Association of Oregon
www.oregonopticians.org
E-MAIL optician@oregonoptician.org

Tennessee

Tennessee Dispensing Opticians Association
www.tdoa.org
(800) 533-6004 • (423) 681-6773

Texas

Registered Opticians Association of Texas (ROATx)
www.roatx.org
E-MAIL samjohnson@roatx.org
(512) 657-2020

Virginia

Opticians Association of Virginia
www.vaopticians.org
E-MAIL michelle@vaopticians.org
(804) 282-6310

Washington

Opticians Association of Washington
www.oaw.org
E-MAIL oawa@comcast.net
(253) 630-3387

Calendar

MARCH 2006

31

Eyes on New York Gala
50th Anniversary of SUNY Optometry, Cipriani, New York
CONTACT: Ann Warwick, vice president, (212) 938-5600
FAX: (212) 938-5653
EMAIL: awarwick@sunyopt.edu
WEB SITE: www.sunyopt.edu

31-April 2

International Vision Expo East, Jacob J. Javits Center, New York
CONTACT: Association Expositions and Service
383 Main Ave., Norwalk, Conn. 06851; (203) 840-5610
EMAIL: inquiry@visionreedexpo.com
WEB SITE: www.visionexpoeast.com

APRIL 2006

2

Opticians Association of New Jersey, Continuing Education Seminar, Saddlebrook Marriott
CONTACT: OANJ (609) 695-0030
WEB SITE: www.oanj.org

7-9

Opticians Association of Washington, 2006 Spring Convention, Little Creek Casino Hotel
91 West State Route 108, Shelton, Wash. 98584
CONTACT: OAW (509) 388-1874
EMAIL: oaw@aol.com
WEB SITE: www.oaw.org

8

Opticians Association of Virginia, Insight 2006, annual Trade Show and Convention, Wyndham Airport Hotel, Richmond, Va.
Wyndham Airport Richmond
4700 S. Laburnum Ave, Richmond, Va. 23231



CONTACT: OAV (804) 282-6310, #3
EMAIL: michelle@vaopticians.org
WEB SITE: vaopticians.org

23

Opticians Association of New Jersey, Continuing Education Seminar, Camden County Community College

CONTACT: OANJ (609) 695-0030
WEB SITE: www.oanj.org

25-27

Wisconsin Optometric Association Spring Spring Seminar, Country Inn, Pewaukee, Wis.

CONTACT: Joleen Breunig, director of member services (608) 274-4322
FAX: (608) 274-8646
EMAIL: Joleenwoaoffice@tds.net
WEB SITE: www.woaeyes.org

30

Opticians Association of New Jersey, Continuing Education Seminar, Tinton Falls Holiday Inn

CONTACT: OANJ (609) 695-0030
WEB SITE: www.oanj.org

30

Opticians Association of Massachusetts, Spring Education Meeting, Wyndham—Westboro, Mass.

CONTACT: OAM (508) 533-1419
EMAIL: OpticiansMA@aol.com
WEB SITE: www.opticiansma.org

MAY 2006

11-13

Midwest Vision Congress & Expo, Donald E. Stephens Convention Center, Rosemont, Ill.

CONTACT: Association Expositions and Service, 383 Main Ave., Norwalk, Conn. 06851, (203) 840-5610
EMAIL: inquiry@visionreedexpo.com
WEB SITE: www.midwestvisioncongress.com

17-20

Montana Optometric Association Annual Conference Holiday Inn, Billings, Mont.

CONTACT: Sue A. Weingartner (406) 443-1160
EMAIL: annual06@mteyes.com
WEB SITE: www.mteyes.com

JUNE 2006

9-12

Alaska Optometric Association (AKOA) Fairbanks Princess Lodge and Pike's Riverfront Resort

CONTACT: AKOA (877) 693-2562

EMAIL: akoa@alaska.com
WEB SITE: www.akoalaska.org

19

Opticians Association of New Jersey, Continuing Education Seminar, South Wall Fire House

CONTACT: OANJ (609) 695-0030
WEB SITE: www.oanj.org

JULY 2006

13-16

ForeSight East, Bermuda 2006, 14 CE hours, Bermuda Fairmont Hamilton Princess

CONTACT: Lois DiDomenico, (866) 658-1772
EMAIL: ldidomenico@jobson.com

27-29

Professional Opticians of Florida, Summer Showcase, Cocoa Beach, Fla.

CONTACT: POF (850) 201-2622
EMAIL: info@pof.org
WEB SITE: www.pof.org

SEPTEMBER 2006

14-16

International Vision Expo West, Sands Expo & Convention Center, Las Vegas, Nev.

CONTACT: Association Expositions and Service, 383 Main Ave., Norwalk, Conn. 06851, (203) 840-5610
EMAIL: inquiry@visionreedexpo.com
WEB SITE: www.visionexpowest.com

16-17

CLES—Clinical Hands-On Training Courses, Basic to Intermediate

Two-day course, basic contact lens fitting. SUNY Health Science Center, Syracuse, N.Y.

CONTACT: CLSA (800) 296-9776

20-24

Wisconsin Optometric Association Annual Meeting & Convention, Marriott, Madison West, Wis.

CONTACT: Joleen Breunig, director of member services; (608) 274-4322
FAX: (608) 274-8646
EMAIL: Joleenwoaoffice@tds.net
WEB SITE: www.woaeyes.org

OCTOBER 2006

5

Opticians Association of New Jersey, 2006 Conference,

{SPONSORED BY ESSLOR OF AMERICA AND LUXOTTICA GROUP}



Raritan Valley Community College

CONTACT: OANJ (609) 695-0030

WEB SITE: www.oanj.org

11-13

IOFT 2004, 19th International Optical Fair Tokyo, Tokyo Big Sight, Japan, (011) 81 3-33498508

FAX: (011) 813 3345-7929

WEB SITE: http://www.ioft.jp, email: ioft-eng@reedexpo.com

13-15

Opticians Association of Washington, 2006 Fall Convention, Pasco Red Lion Hotel, 2525 N. 20th Ave, Pasco, Wash. 99301.

CONTACT: OAW (509) 388-1874

EMAIL: oaw@aol.com

WEB SITE: www.oaw.org

11-14

American Academy of Ophthalmology Annual Meeting, Las Vegas, Nev., Sands Expo at the Venetian

CONTACT: American Academy of Ophthalmology, (415) 561-8500

FAX: (415) 561-8533

WEB SITE: meetings@aoa.org

15

Opticians Association of New Jersey, 2006 Conference, Raritan Valley Community College

CONTACT: OANJ (609) 695-0030

WEB SITE: www.oanj.org

19-22

Great Western Council of Optometry Doubletree Lloyd Center and Oregon Convention Center, Portland, Ore.

CONTACT: Marti L. Wangen, CAE (406) 443-1160

EMAIL: gwco06@gwco.org

WEB SITE: www.gwco.org

22

Opticians Association of New Jersey, 2006 Conference, Camden County Community College

CONTACT: OANJ (609) 695-0030

WEB SITE: www.oanj.org

27-30

Silmo International Optics and Eyewear Exhibition, Paris Expo Porte de Versailles, Paris

CONTACT: Isabelle Ferreira: 33 (0)1 43 46 27 61

FAX: 33 (0)1 43 46 27 62

EMAIL: iferreira@silmo.fr

WEB SITE: www.silmo.fr

NOVEMBER 2006

3-5

Professional Opticians of Florida, Vision Preview, Fort Lauderdale, Fla.

CONTACT: POF (850) 201-2622

EMAIL: info@pof.org

WEB SITE: www.pof.org

5

Opticians Association of Massachusetts, Annual Meeting & Fall Education Conference, Wyndham—Westboro, Mass.

CONTACT: OAM (508) 533-1419

EMAIL: OpticiansMA@aol.com

WEB SITE: www.opticiansma.org

4-5

CLES—Contact Lenses, Intermediate to Advanced SUNY Health Science Center, Syracuse, N.Y.

CONTACT: CLES (800) 296-9776

9-11

OLA 2006, Optical Laboratories Association's annual meeting and convention, Gaylord Palms, Orlando, Fla.

CONTACT: Carmen Sevilla, (800) 477-5652 or (703) 359-2830

FAX: (703) 359-2834

EMAIL: carmen@ola-labs.org

WEB SITE: www.ola-labs.org

10-11

Tennessee Dispensing Opticians Association (TDOA) 2006 Fall Review course,

contact lens review: Nov. 10, spectacle review: Nov. 11

CONTACT: TDOA Headquarters (800) 533-6004

10-11

Wisconsin Optometric Association Primary Care Symposium, Regency Suites, Green Bay, Wis.

CONTACT: Joleen Breunig, director of member services;

(608) 274-4322

FAX: (608) 274-8646

EMAIL: Joleenwoaoffice@tds.net

WEB SITE: www.woaeyes.org

DECEMBER 2006

4

Opticians Association of New Jersey, Continuing Education Conference, Camden County Community College

CONTACT: OANJ (609) 695-0030

WEB SITE: www.oanj.org

7-10

American Academy of Optometry, Colorado Convention Center

CONTACT: AAO (301) 984-4734

WEB SITE: www.aaopt.org

WORKING TOGETHER



*Pierre Fay
Senior Vice President
Luxottica Group*

“*As the new head of Luxottica's North American Wholesale Division, I am extremely excited to be Working Together with you more closely in building a mutually rewarding and successful relationship.*

In support of our commitment to your growth and profitability, we have put into action many powerful initiatives this year designed to help you help your patients.

It is my deepest desire that our new Luxottica programs, products and services, together with our dedicated associates, move forward your goal toward greater consumer satisfaction... and assist in the growth and prosperity of the optical marketplace.”

*Pierre Fay
Senior Vice President, Luxottica Group*

