Primer on Polarized Lenses

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Michael Vitale has no financial interests to disclose

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Agenda

- The Market
- Polarized Problem
- Polarized vs. Tinted
- The Polarized Benefit
- How to Sell Second Pair Sunwear
- Summary
Rx Sunwear Market

ECPs Revenue Comes From:

- Patient Exams: 30%
- Frames: 24%
- Spectacle Lenses: 24%
- Contact Lenses: 14%
- Sunwear: 6%
- Other: 2%

According to Eyecare Business Survey, 2010

Graphic Courtesy of Younger Optics

Which Products do ECPs expect to grow?

- Sunwear: 33%
- Spectacle Lenses: 23%
- Contact Lenses: 13%
- Other: 8%
- Frames: 8%
- Patient Exams: 8%

Graphic Courtesy of Younger Optics
Which Lens Technologies do ECPs expect to grow?

Polarized eyewear is 4th most expected technology while occupying only 6% of the market. It has a great potential of growth.

According to Eyecare Business Survey, 2010

One Pair A Day Makes a Difference!

Percentage of ECPs Selling 5 Pairs or Fewer

60% of Practices Sell 10 Pairs or Fewer

Percentage of ECPs Selling 10 Pairs or Fewer

ECPs who sell 1 sunwear pair per day earn at least 10% more income.

ECPs who sell 5 sunwear pairs per day earn at least 20% more income.

Polarized Market Share

Percentage of Polarized Eyewear Usage among U.S. Adult Population

Rx Eyeglasses: 64%
Plano Sunglasses: 80%
Rx Sunwear: 7.0%
Polarized Rx Sunwear

Opportunity

The Market Has A Long Way to Grow!

Everyone Needs Rx Sunwear

Graphic Courtesy of Younger Optics

Current Situation

6% of patients buy polarized sunwear

Rx Sunwear Potential

It should be 100% of your patients

What is Polarized Light?

- When light waves encounter an object, it can reflect and enter the eyes
- Often, light reflects back to our eyes from flat and shiny surfaces
- The reflected light waves now travel in a single horizontal plane
- This "flattened" light is known as "polarized light"
What is Glare?

- When light bounces off a flat or shiny surface, it can become polarized and enter the eye as glare.
- Glare is described as a loss of visibility and essentially overpowers the eye, making it unable to adapt.
- Glare makes it very difficult to see; colors also appear washed out.

Why is Polarized Light a Problem?

This reflected glare (excess light) can present significant issues such as road safety, as well as the ability to view the outdoor world with comfort and clarity.

Driving Safety

- Fixation takes 0.25 seconds
- At 60 miles/hr objects are clear only every 22 feet
- As an example, in 2.5 seconds you would travel 220 total feet and have fixated or seen only 10 things specifically
- You miss a lot!!
- Tinted lenses won’t stop blinding glare
- Polarized sunglasses blocks blinding glare and helps allow reaction time for an otherwise unseen emergency
SUNWEAR & DRIVING SAFETY

NY – Because of the extreme glare of the setting sun, she did not see the flashing lights or the stop sign on the bus.
NY – Glare is blamed when a truck driver hits a woman crossing the street.
NJ – Man blinded by sun drives smack into an oncoming train.
CA – Bus driver with sun in his eyes hits and kills a little girl.

How are Tinted Lenses made?

- Lenses are immerse in a special liquid containing the tinting material.
- The tint color is slowly absorbed into the material.
- To make a darker tint, the lenses are simply left in the liquid longer.

Image Courtesy of Essilor
How is Polarized Film made?

- Iodine crystals are randomly imbedded into a sheet of translucent film base
- Imbedded film base is then stretched in one direction only
- Stretching causes random crystals to become “aligned” in parallel to each other
- Prepared film sheets dyed to color and cut to lens diameter as disks
- The Venetian Blind effect!

Polarized sunwear gives your patients better protection, performance and comfort than tinted lenses can achieve: 

<table>
<thead>
<tr>
<th>Feature</th>
<th>Polarized</th>
<th>Ordinary</th>
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<tbody>
<tr>
<td>Brightness Reduction</td>
<td>★★</td>
<td>★★</td>
</tr>
<tr>
<td>UV Protection</td>
<td>★★</td>
<td>★★</td>
</tr>
<tr>
<td>No Glare</td>
<td>★★</td>
<td>★★</td>
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<td>Clarity of Vision</td>
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<td>★★</td>
</tr>
<tr>
<td>Does Not Fade</td>
<td>★★</td>
<td>★★</td>
</tr>
</tbody>
</table>
Benefits of Polarized UV Protection

- Every year 3.2 million people go blind through prolonged UV exposure.
- Sun exposure can be a contributing factor of macular degeneration, an incurable eye disease that is the leading cause of blindness for those aged 55 and older in the United States.
- UV exposure causes 90% of the symptoms of premature skin aging.
- 90% of skin cancer occurs in the vicinity of the head and neck.
- Skin cancer of the eyelid accounts for 5-10% of all skin cancers.

Glare Reduction

- Light striking a flat, shiny surface becomes polarized as it strikes the horizontal surface.
- Polarized lenses are filters that absorb light with horizontal polarization, so glare is greatly reduced.
“Reaction Time” Study

- On average, reaction time was reduced by 1/3 of a second
- A vehicle traveling 50 mph covers 23 feet in 1/3 of a second
- A 23 foot “head start” in your ability to stop equals the approximate length of an intersection

“Gain of Visual Acuity” Study

- While driving on a sunny day, the reflected light from a dashboard can create troublesome glare
- Polarized lenses were found to provide both improved contrast and visual acuity in simulated daylight driving conditions versus tinted lenses

Greater Clarity

- Contrast sensitivity
  - Excess light overwhelms color and blur edges
  - Objects virtually disappear as contrast is reduced
  - Polarized lenses enhance contrast sensitivity by reducing excess light by up to 75%
- Increased visual acuity using qualitative assessments
- Improved edge detection of low-contrast objects
- Better depth perception
Natural Color Rendering

- Some polarized hues can absorb wavelengths evenly across the spectrum, allowing all colors to retain their relationship to each other.
- The result is true color rendering.
- 69% of regular sunwear users cited “natural color rendering” as a key driver for choosing polarized

Contact Lens Wearers

- Glare with contacts
  - Edge flare
  - Small lenses, large pupils
  - Increased light sensitivity
- UV blocking contacts
  - No substitute for sunglasses
  - Contacts cover only the cornea at best
  - Sunglasses not only cover the eye but also parts of the face
- Contacts do not block blinding glare

The Advantage's of Polarized Lenses
Premium Optics

- Premium Polarized Lenses are available from most Premium Lens Designers
- This includes not only single vision but progressives as well
  - Digital lens processing allows for “all” lens designs to be available in polarized
  - This provides seamless transition between clear indoor eyewear and outdoor sunwear

Excellent Durability

- Premium Polarized Lens manufacturers provide unsurpassed hard coating technology that allows your outdoor eyewear to be very durable

Polarized and...

- Adding AR to the backside of polarized lenses
  - Reduces backside reflections
- Materials
  - CR39®
  - Polycarbonate
  - Trivex®
  - High Index
    - 1.6 and 1.67
Color Dispersion

- Polarized lenses should possess **color consistency** throughout the brand line.
- Every sheet of film needs to be evaluated for homogeneity, making sure that only those portions of the film that are exactly alike are used.
- Manufacturing processes that use the dichroic film process have a better control of the color consistency.

Polarized Alignment

- Film must be aligned at **exactly 180°** to eliminate horizontal polarized glare.
- If it is off axis even 5 degrees, it will not be as effective.

Selling Second Pair
How to Sell Polarized Sunwear

1. 20% of frames should be fitted with polarized sun!
2. Dedicated section displayed at eye level
3. Include appropriate sun options for children

What Patients Want

Your patients prefer good value over low cost.
Always mention the best available product to your patients. They are interested in quality.
Discuss Harris Interactive Poll, Eyecare Business Whose Advice is Respected the Most?

Your Patients Trust You

87% 83% 78% 65% 48% 27%

You have a great influence on your patients’ decisions. They deserve the best products and care. Always offer them Rx Sunwear.

Train your staff and educate your patients

Make the sunwear conversation “standard operating procedure”

Every patient should be offered a primary outside pair

Consider a second pair discount!

Overcome Price Sensitivity

Current re-purchase cycle estimate is approx. 28 months according to the latest Vision Council data

Compare that to the following:

- Grande Latte $3.65/day
- Cable Service ($79/mo) $2.53/day
- Shoes, 6 pair ($60 avg/pr) $0.97/day

Do the math, a second pair of glasses for outdoor use is very cost effective!!!
Answer Objections

“Sunglasses are too expensive”
- Serious auto accidents are caused by glare
- Cataracts and macular degeneration are increasingly linked to over exposure to the sun

“I can buy polarized lenses at the drug store”
- Not prescription lenses
- Usually cheap bent plastic sheet, not an optical lens
- Likely to delaminate and degrade in high or low temperatures
- Usually no coatings like scratch resistant or backside AR

Discussion Opportunities

SET UP THE CONVERSATION
Ask the patient if they have sunwear and to bring them to the appointment

MAKE AN INSIDE & OUTSIDE RECOMMENDATION
Discuss the clinical benefits of Polarized
Write 2 prescriptions

ENGAGE THE CONVERSATION
1. Discuss the need
2. Demonstrate the solution
3. Deliver the solution

Which patients should have polarized sunwear?

ALL OF THEM
- Drivers
- Athletes
- Patients who are light sensitive due to medication or eye surgery
- Seniors
- People concerned with eye protection
- Patients who love high quality
- Children who spend time outdoors

Courtesy of Younger Optics
“Starter Questions”

- What UV protection do you use for your eyes?
- Did you bring in your prescription sunglasses today?
- Would you like to fill your prescription for sunwear also?
- Have you had the experience of dealing with road or windshield glare while driving?
- How many different pairs of glasses do you have for other uses?

- Encourage patients to try on polarized
- Utilize a demo tool for customers to notice and interact with
- Take your patients outside to see the impact of polarized lenses for themselves
- Utilize brochures in your waiting room and dispensary
- Send recall cards

After Displaying, Discussing and Demonstrating the benefits of polarized sunwear, it helps to Deliver the solution with savings to the patient

- Customer satisfaction
- Increased referrals
- Heightened credibility
- Likely to repurchase

Maximized Profitability
Summary

1. Polarized is the only technology that solves the glare problem
2. Eliminating or greatly reducing glare benefits include road safety and visual performance
3. Polarized lenses are durable and provide your patients with increased visual clarity
4. The 4D’s can help you maximize your Rx Sun opportunity

Summary

Why Polarized Lenses are the best for your patients and your practice?

For your Patients
- Best driving sunwear
- Improves visual acuity
- Increases visibility
- Reduces fatigue
- 100% UV protection
- Truer colors
- Higher contrast

For You… and Your Office
- Premium product
- Easy to demonstrate
- Increased sales and profitability
- Increased patient satisfaction
Remember, if you do not offer a second pair of polarized sunwear to your patients, your competition will!

And finally, remember this quote from Albert Einstein:

If you always do what you always did, you will always get what you always got.
- Albert Einstein

Special thanks to

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