

Script Part 1 – The Happy Side of Blue

1. I'm sure that we've all read about and heard of the potential damage that blue light can do to the eye over a lifetime and/or how new electronics and lighting pose a risk.

But, how much do you know about the good side of blue light? Blue light is a complex subject and while you want to counsel patients correctly about blue concerns, sales are easier when there are positive results to talk about.

This is, "The Happy Side of Blue"

2. This course is an ABO approved product spotlight.

This course provides a review of blue light from the glass half full side i.e., how new Happy Lens by SPY Optic helps manage important blue light effects outdoors.

Pass the 20-question exam with a score of 80% or more and you will receive 1, technical, level 2 credit.

Jobson sends your pass to ABO automatically so there's nothing more for you to do, you can always log into your account online and reprint a copy of the certificate.

This course is supported by an educational grant from SPY Optic

3. Our objectives are;

1. Know why blue light is important and how the component parts of blue light affect the positive and not just the negative side of health.
2. Understand how blue light is important for sleep and that sleep is a critical and essential part of human health.
3. Understand which assessment tools can be used to evaluate outdoor and indoor lens products.
4. Learn the requirements for outdoor sunlens products and know how to teach patients all the facts, as we know them, about the good and the bad of blue light.

4. Navigating this course is easy, follow along with me...

1. Are the page titles.
2. Click on Notes and you can read along as I narrate each slide.
3. Adjusts the volume.
4. Starts or pauses the narration.
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6. Replays the page from its beginning
7. Click Previous or Next to move through the pages

Test them, OK let's begin

5. We began by saying that blue light has a happy side; it helps regulate sleep, critical for well-being and alertness as well as moods.

Part 1 starts us off by teaching us about health and sunlight.

6. Did you know?

America's most popular crayon color is one of Crayola's original colors, the color blue.

Crayola® alone has around 15 different shades of blue.

Blue is the color of the sky, the ocean, the color of people's eyes, or a way to describe one's feelings.

Blue is used to portray many different images and emotions, no wonder it's the most popular color.

7. But blue light is a very large component of sunlight, outdoors

Outdoors, blue light contributes to health, individuality and a sense of wonder

Blue makes a positive difference...

Why is this important? Turns out that it makes a difference in the sunglasses that you and your patient's wear.

8. Let's start by understanding the source of most light – the sun.

It warms the planet because of its energy components and that energy takes many forms. For that young plant in the photo, it provides the energy to produce chlorophyll for growth.

For humans, we use the UV component of sunlight, absorbed by the skin, to synthesize Vitamin D, an essential component for health.

The liver and kidneys convert this Vitamin D into compounds that assist bones in absorbing calcium for good bone health. In an aging population, that's critical to prevent or reduce osteoporosis. Vitamin D modulates cell growth, cell proliferation, and

differentiation, affects immunity, helps reduce inflammation and is involved in the body's ability to prevent cancers.

When sunlight is reflected off objects, the wavelengths that enter our eye are processed by specialized structures in the retina, the rods and cones, into electrical signals interpreted by our brain. We see.

The eyes also use sunlight and light from artificial sources to manage our moods and sleep patterns. Those are important everyday.

Let's look at that in more depth.

9. Here's the part of sunlight that affects our eyes. It's a small part of the radiation from the sun, but it's the important part for us.

The sunlight's components are critical to a variety of everyday life's functions. Some of the radiation we receive from the sun can be harmful, other beneficial.

Let's get the harmful radiation out of the way first. From left to right... UVB are the burning rays producing sunburn, cancers and cortical cataracts.

Ultraviolet, UVA and UVB radiation is accumulated over a lifetime. UVA are aging and cancer causing rays. They initiate retinal damage in young children because of the early transparency of the crystalline lens, over time cause skin changes and their absorption in the crystalline lens results in lenses that get yellower and yellower until they need to be extracted.

Next, the high-energy visible radiation (HEV), the short blue violet wavelengths between 415 and 455nm are associated with retinal problems and age related macular degeneration.

BUT, the rest of the spectrum of light, starting with the longer wavelength blue is important to the body. Why?

10. Vision provides 80% of the information for learning in children, it allows easy mobility within our world and, is a critical part of everyday decision making. Sight provides a rich mix of millions of colors.

We would want to protect our eyes and their structures so that, in a population living longer and longer, we have great vision for a lifetime. That means the right management of blue since of the visible light it appears to affect the body most.

11. In vision, blue produces scatter and haze.

It scatters because it is easily bent or refracted so that sunlight's short blue rays crisscross over each other, the reason for the blue sky. This scatter produces haze, a kind of glare.

The short wavelength blue is also not focused on the retina when part of white light. The longer wavelength, green is focused on the retina, shorter wavelengths like blue focus in front of the retina, longer, like red, behind. In an attempt to focus all light, the eye will use up energy.

Off center in prescription lenses, the prism separates the wavelengths and the resulting chromatic aberration produces a blue smear on one side of the mosaic of objects looked at causing blur, reducing the clear field of view.

12. But, light and in fact, blue light takes two different pathways in the eye for use in our bodies.

We talked about vision and that uses the Optic Tract, the rods and cones of the retina to form electric pulses interpreted by the brain.

The other is the Retina (nerve layer of the eye)- Hypothalamus (portion of the brain producing essential substances) Tract, called "retinohypothalamic", that's a mouthful.

Read the list with me...

I bet that you are surprised that the eye is involved in all of these things that promote good feelings and good health. IT tunes out that it is the longer wavelength blue that helps manage these biological/behavioral effects.

13. So, what are we talking about? The longer blue wavelengths, about 459nm to about 486nm are key influencers of the retinohypothalamic tract.

Look at the illustration. This means that all that stuff about bad blue needs to also be balanced by good blue and any lenses that we place in front of the eye needs to correctly differentiate how they affect the two.

14. Here's some detail.

The retina is transparent so that light can pass through its layers. Look at the video from SEEING, A Photons Journey Through Space Time and Mind, courtesy of Koenig Films – photons of light pass by the nerve fibers cross the top of the retina and exit at the optic disc. These photons hit the first layer of cells, the ganglion cells. Ganglion cells connect to bipolar cells, which connect to the lowest layer of rods and cones.

Discovered in 1998, this new retinal photoreceptor named melanopsin ganglion cells, are activated by the wavelengths of the blue, a good blue, part of the synchronization of our circadian clock.

From a paper titled, “The good blue and chronobiology: Light and non-visual functions, by CLAUDE GRONFIER, Ph.D”, the eye is not only for seeing. It is also involved in a range of non-visual functions, directly stimulated by light in the 460 to 490nm range (the author lists 459-486nm).

The good blue and chronobiology: Light and non-visual functions, CLAUDE GRONFIER, Ph.D, Inserm U846, Stem Cell and Brain Research Institute, Department of Chronobiology, Lyon, France

15. Let’s talk about sleep...

Retinal ganglion cells transmit light signals to the hypothalamus, an area of your brain

In the absence of strong light, the hypothalamus tells the pineal gland, a small organ situated in the brain, to release melatonin. Melatonin is the synchronizer of the biological clock and gets the body ready for sleep. It’s also a powerful antioxidant so critical for many other body functions.

Sweet dreams... Oh...

During daylight hours, the opposite occurs, the pineal gland produces very little melatonin. And, as a result, we are alert and ready to go to the next page.

16. From “The Good Blue – Light and Non-Visual Functions”, sleep and this internal clock helps with the control of cell division, apoptosis (cell death) in cancer, plus the repair of DNA

There is some speculation that essential sleep could be responsible for the increased prevalence of certain cancers in shift work

This synchronization seems to be crucial to human health and since the clock is close to, but not exactly 24 hours, the circadian clock must be constantly synchronized to 24 hours

In mammals, light is the most powerful synchronizer of the internal clock

17. More...

The two types of photoreceptors in the external and internal retina involved and they are functionally different

Unlike cones and rods, melanopsin ganglion cells require high illuminance, lots of light and show a peak of sensitivity at around 480nm

Also show the property of biostability, which makes them virtually insensitive to bleaching

What can be affected if you don't get enough sleep?

18. Look at this diagram from Nutrition Review.

It's surprising to read the list but think about it, when you've not been able to get enough sleep regularly, you probably get as grumpy as I get – grrrrrr.

But think about one of the reasons – bad wavelength management of light. That's something we can do to better manage the kinds of sunglasses we suggest that patients wear. We can't control other things that might keep our patients up at night but we should help control what we can, their glasses, their sunglasses outdoors when blue light is most intense.

19. Want to feel calm and focused?

Sunlight stimulates the brain to produce serotonin

The other chemical produced by blue light is serotonin, a hormone that helps synchronize cells throughout the body

Serotonin is a neurotransmitter, assisting the pathways to move messaging

It is mood boosting; it helps a person feel calm and focused

It's popularly thought to be a contributor to feelings of well-being and happiness

20. Here's a standard brown sunglass transmission curve. Like most brown lenses, it significantly reduces the blue wavelengths transmitted.

The result is a lens that improves contrast but shifts colors seen towards the reds.

In this case it's good for the bad blue, but bad for the good blue.

21. That says that we should consider smarter sunwear.

We want to address bright sunlight by reducing or eliminating glare. It's also helpful to reduce, eliminate scatter and blur so we should also be considering blue management.

For Ultraviolet radiation, because it is a cause of cataracts, pinguecula, pterygia, sunburn, cancers, AMD, we want to absorb 100% of the UV.

But for blue light, some bad, and some essential. In fact 25-30% of sunlight are the blue wavelengths. To properly sort out the blue we need smarter sunglasses that separate and manage blue better.

22. Test what you learned in this first part? Here's a short matching quiz.

23. In conclusion, there's more to light than just vision. And, there's more to sunglasses than the therapeutic side of just absorbing 100% of the UV

Blue light is an important positive influence on the body, it's essential for production of serotonin and melatonin

Good health and good feelings are a product of blue light

Outdoors, where there is so much blue, sunglasses must separate and better manage the blue

24. This is the end of Part 1 Health and Sunlight of "The Happy Side of Blue".

Review this discussion, think about the information that is new

Then, complete parts 2, 3 and 4. For ABO credit, review the questions.

When you are ready, log into your account at 2020mag.com/CE and TAKE the EXAM

Good luck and thanks for learning.

Script Part 2 SPY Optic – Happy Lens

1. As we've learned, blue light helps regulate sleep, critical for well-being and alertness as well as moods. This part takes a deeper dive into the good effects of blue.

2. This course is an ABO approved product spotlight.

Pass the 20-question exam (80% or more) Receive 1, technical, level 2 credit

Jobson sends your pass to ABO automatically

This course is supported by an educational grant from SPY Optic.

3. Part 2 helps us understand how blue light is important for sleep, mood and alertness, a critical and essential part of human health.

4. Navigating this course is easy, follow along with me...

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OK let's begin

5. Part 2 – uh oh, let's see what happens when you play with Mother Nature

6. We've seen that blue light during the day is good and during the night is bad. It leads to sleep deprivation.

Now, today, it's very common for teenagers and young adults to use digital devices all day and for some right up to bedtime. That's an issue since the bad blue continues to accumulate and the good blue of the day is not meant for the evening.

In fact, CFL and LED lighting gives off higher amounts of bad blue light and when one considers the changes to schools and businesses for improved savings, it is possible that we are creating an important future issue for next generations.

Combine that with poor or no sunglasses on young people and a **lack of sunglass knowledge about what are their important qualities**, and we have a **potential problem**.

7. What do we need to know?

Higher energy 'blue', 415-455nm, penetrates deeper into the retina than other wavelengths. This produces a toxic, apoptosis-causing molecule called A2E in the retinal pigmented epithelial (RPE) cells, causes loss of viability.

For the wavelengths 460-500nm, there are a variety of light driven body mechanisms dependent on them.

So, we then have blue that is divided into potentially harmful and beneficial wavelengths.

For example, the wavelength 485nm is associated with good mood and alertness.

But, our body uses blue differently, day and at night.

8. Let's do an If/Then exercise...

If Day has lots of Blue Light Then we are Awake and we can improve alertness, mood and get better sleep at night.

If at Night, there's no Blue or very bright Light, 2-3 hours before bed then we'll probably Sleep better

The way you feel when you are awake is dependent on how you sleep. During sleep, your body is working to support healthy brain function and physical health.

In children and teens, sleep also helps support growth and development.

The damage from sleep deficiency has been in the news a lot lately.

In an instant, it can be disastrous from lack of alertness, for example a car crash.

Over time, sleep deprivation can raise your risk for chronic health problems, can affect how well you think, react, work, learn, and get along with others

9. So..... Get 8 hours of sleep a night!

Ha!!!

10. Let's do the if/then again

Look at the tablet –

If we have blue light during the day, we're nicely awake, alert, etc.

If at night there is blue light and lots of it, we are probably AWAKE, great. That's because of blue.

What does that mean?

11. It's one of the factors that contributes to sleep problems and that's an epidemic in this country.

It means waking tired in the morning; you're probably underproductive too. Lack of that deep REM sleep means poor learning and storing memories.

Melatonin production has been stalled and we need melatonin because it's anti-oncogenic, slows the formation of tumors. In breast cancer patients it's been reported

to slow breast tumor development and increase tamoxifen effectiveness by preventing the *cancer* cells from getting the hormones they need to grow.

It's also helps in anti-oxidant production, which contributes to overall cell health.

So, don't get in the way of melatonin.

12. Alertness and mood improvement is linked to the sleep pattern or another way of saying that is our Circadian Clock.

1. Just 2hrs at low light sensitivity (like the screen of an LED backlit computer), partially inhibits melatonin production, activates alertness good during the day, not so good at night.

2. Light, via non-visual retinal cells (ganglia), directly stimulate the cerebral structures, pineal gland, hypothalamus...

3. So, the effect of light on the body is time sensitive, daytime advances clock, nighttime delays clock (jet lag, night work). That's what keeps us tuned to the 24 hour time period of a day.

4. Let's be sure to take care of those retinal ganglion cells. They help reset melatonin, alertness, body temp, heart rate, memory and mood.

13. What did we learn?

There are two kinds of blue.

There's bad blue, for which we should protect, day and night.

There's good blue, at nighttime, protect your eyes, you'll sleep better and that has a positive affect on overall health.

For the good blue during the daytime, outdoors, that means choosing sunwear that maximizes the good, longer blue light transmission.

14. True or False – let's see what you learned.

Low energy, longer wavelength violet to blue is harmful

Long wavelength blue to turquoise is body beneficial

Protect your eyes from the sun's harmful rays, only in the afternoon

Long wavelength blue light (485nm) improves mood and alertness

Melatonin synchronizes the circadian clock using the retinal cones

15. Congratulations that was terrific – you’ve completed Part 2!

Review this discussion; think about the information that is new.

Complete all 4 parts. For ABO credit, review the questions. When ready, log into your account at 2020mag.com/CE and click on the TAKE EXAM button.

See ya in Part 3.

Script Part 3 SPY Optic – Happy Lens

1. This is the glass half full part of the course i.e., how new Happy Lens by SPY Optic helps manage important blue light effects outdoors.

2. This course is an ABO approved product spotlight.

Pass the 20-question exam (80% or more) Receive 1, technical, level 2 credit

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This course is supported by an educational grant from SPY Optic.

3. Part 3 teaches the tools to evaluate outdoor lens products and, introduces and describes the benefits of the SPY Optic, Happy Lens, and how it manages the blue component of sunlight which exposes us the most to blue.

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OK let’s begin

5. Part 3 – What are the tools to evaluate a new product opportunity and how have they been applied to the SPY Optic Happy Lens?

6. Remember Mother Nature?

Outdoors and sunlight are a critical part of a healthy and happy day.

That also means making the right sunglass choice. What do I mean?

7. What are the ways that we need to positively manage sunlight for our patients? You know some of these, I'm sure.

Sun is required for children's eye development. It is one of the treatments for myopia prevention. Bright sunlight produces a chemical that helps retard the excess elongation of the eye during growth and development.

Sunlight, most specifically UVB (wavelengths 270-300nm) are required for Vitamin D production which helps manage overall cell help factors.

Eye protection, specifically 100% UVB/UVA absorption and blue-violet reduction is required because the damaging effects are accumulated – living longer means that the effects of that radiation catches up with us.

We all wear sunglasses for glare reduction but that means a conversation about commuting, leisure, occupations, sports as well as protection.

By effectively managing glare... with the right sunlenses (in plano, Rx, better lens designs...), the combination of acuity, contrast and perception, for different environments (lens colors) results in a patient's best vision possible.

Comfort, reduced dazzle, enhanced colors, confidence – how do we do all that?

8. We deliver an essential sunglass to our patient.

First it protects from impact, glare and absorbs 100% UVA, UVB radiation.

They reduce blue-violet light, linked to digital eyestrain and more seriously AMD.

They promote good health too by transmitting the good blue (460-500nm).

They manage color preference, grey, brown, green and,

improve contrast using the right selective absorption (more about that in a bit) and are polarized.

9. Selective absorption – that's the term we optical geeks use to describe the way that color filters in eyeglass lenses absorb or transmit invisible UV or the color wavelengths of the visible spectrum.

This is a transmission curve of a hard resin blue-blocker lens from an inexpensive plano sunglass. This represents one example; there are others and they will be slightly different.

However, see that this lens, like most hard resin still transmits some UV, the light purple arrow. The blue-violet is reduced, the longer blue-turquoise is also reduced and then at about 510nm, blue green, transmission increases. This lens is brown in color and when looking through it, casts a reddish tint to the world that you would see.

10. In contrast, this is a brown 3, tinted lens, also in hard resin.

100% of the UV is absorbed, almost all of the short blue, all of the long blue, most of the green (550nm) then ramping up. So, even though this lens is hard resin, the tint helps absorb all the UV.

So, these first two lenses, brown in color 'see' very differently. They shift the colors that wearer's 'see' (perceive) and add contrast by reducing the short wavelength scattering blue.

11. You might have asked about a gray 3, lens. Here's that graph.

A little UV, less of the short blue-violet, more of the longer blue but then pretty flat across all the wavelengths until red and increases steeply. This type of filter lens is referred to as 'neutral density' i.e., all the colors are transmitted more or less equally so when wearing the lenses, colors are not changed. There are some patients that don't like the color shift of browns so prefer gray.

I hope that you can see how transmission curves are useful to understand, in general what patients see and one way confirm the protective properties of sunlenses.

12. That means that for every new sunglass, you want to question the 'transmission curve' attributes of the lenses you order, promote and dispense.

Ask the following questions...

- Do the lenses absorb 100% UVA and UVB? Show me.
- Is there a reduction of potentially harmful blue-violet light? Show me
- Does the lens increase the beneficial blue light? Show me
- Is there a reduction of glare? Try them
- Is color contrast improved? Try them

13. Let's change gears, now that you have a perspective about lens attributes vs. the effects of different wavelengths.

I'd like to review this new sunglass filter lens, SPY Optic's Happy Lens. It's a sunglass that eliminates 100% UVA/UVB, reduces blue-violet, improves transmission of blue-turquoise, reduces glare and enhances contrast.

However, it treats the blues differently than other sunglasses and as a result claims that its design contributes to alertness, mood and a general feeling of well-being.

14. Spy Optic is a well known designer, developer, manufacturer, and marketer of premium sunglasses.

A new and patented technology enabled creation of the "Happy Lens".

This lens helps the wearer feel better by transmitting the recognized therapeutic wavelengths targeting circadian rhythm, alertness, and mood.

They block UV and short-wave blue radiation, remove glare, enhance colors and contrast and overall relax the eyes.

15. Let's use the T curve to show lens' differences.

I've superimposed the Happy Lens curve over the Gray 3 lens we looked at before. See the differences.

Happy Lens eliminates all UV, reduces bad blue, and peaks the good blue, then slowly ramps in the reds. The lens is a different kind of gray lens, with better filter characteristics.

The important learning here is that gray is not gray, just like all blue is not blue. There are differences and those differences can make your business different.

16. What does brown look like in comparison to an ordinary brown tinted hard resin lens?

UV, out, bad blue significantly reduced, good blue significantly improved.

Ok, that suggests that the lenses are indeed different – how do they wear?

17. SPY Optic contracted with Tragon, a marketing research firm to determine if Happy Lens is preferred over a user's current sunglasses.

Does Happy Lens enhance a user's attitudes, emotions, and alertness while wearing and identify the lens' attributes associated with this perception.

Last, determine the wearer's purchase interest in Happy Lens. That's important for you to know.

18. 78 adults were recruited from the San Francisco metropolitan area. Read along with me.

- There were 65% Males and 35% Females
- Ages 18 to 45
- Wear non-corrective, plano sunglasses on a regular basis
- May wear contact lenses with sunglasses
- Price of primary non-corrective sunglasses were at least \$60 retail
- Are not employed during evening hours/night shift (between 10pm and 6am)
- Are not allergic to textiles, plastics or other metals commonly found in eyewear
- Willing to replace their current sunglasses with a test product for at least 5 days in a frame style provided to them
- Not competitively employed
- Have not participated in a marketing research project within the past 3 months

19. Here's the method used...

Read along with me.

20. After the wearing trial, what was their overall opinion and would they buy this product?

Consumers watched a 1-minute concept video about the Spy Optic Happy Lens, and then completed a questionnaire.

Consumers rated the Spy Optic Happy Lens concept very well scoring a 7.5 on a 9 point hedonic liking scale. Look at the left hand scale – the 9 points are broken up into a set of very discerning attitudes about results. This scale is a very well used in consumer research.

The happy Lens scored 7.5 out of 9 (that's like 83%) and 75% of the population chose the top-2 choices for purchase interest, Definitely, or Probably would purchase.

That's good.

21. Is the story believable; after all, think of you describing this product – Happy Lens.

The description of how the lens works was very believable to most consumers, 84% thought it completely or Somewhat Believable.

22. Agree or disagree with the following statements? In addition, this compared the test lenses with the wearer's current sunglasses. In all cases they did better, some significantly better

Let's read them together.

I felt my mood was improved...

When wearing these glasses I felt alert or energized...

I felt more confident driving...

I would recommend...

These are premium sunglasses...

These sunglasses felt very comfortable...

My eyes felt relaxed and comfortable...

I was happy with the way colors appeared...

Happy Lens were rated higher in all mood and emotions statements; most notably for mood improvement, alertness and energy, comfort in bright sun and glare, relaxed and comfortable on the eyes, and visual appearance of colors, indicating the glasses delivered against the concept and provided these "happy" benefits.

23. Did the sunglasses meet the wearer's expectations?

Happy Lens met or exceeded expectations for 85% of consumers, indicating the product delivered very well against the concept.

Interesting results, huh?

24. Let's wrap this up, shall we?

Happy Lens by SPY is a differentiable sunglass, a critical need when a sunglass seller.

They reduces scatter, glare and improve color sensation.

Their technology recognizes and contributes to our circadian physiology.

They increases long wave blue, required for the other "visual" responses to light. It wakes you up, improves 'mood and alertness.

That's because they positively affects melatonin production.

Helping the body's daytime blue light mechanism for good sleep at night, essential for overall health, reaction time and emotional state.

Overall, providing comfort for all outdoor daytime conditions.

25. Test yourself here...

1. All of the following are Happy Lens attributes except
 - a. Reduced scatter and glare
 - b. More Absorption of the short wave blue than long wave blue
 - c. Can improve alertness and mood
 - d. Only designed for overcast weather

2. What peak blue wavelength does Happy Lens transmit?
 - a. 410nm
 - b. 480nm
 - c. 550nm
 - d. 625nm

26. This is the end of Part 3.

Review this discussion; think about the information that is new.

Complete all 4 parts

For ABO credit, review the questions, when ready, log into your account at 2020mag.com/CE and click the button to TAKE EXAM

Thanks again for your time – check out Part 4.

Script Part 4 SPY Optic – Happy Lens

1. Mark Mattison-Shupnick again for this last part of the Happy Lens course.
2. This is Part 4 of an ABO approved product spotlight course.

Watch and listen to all four parts and pass the 20-question exam (80% or more) Receive 1, technical, level 2 credit

Jobson sends your pass to ABO automatically

This course is supported by an educational grant from SPY Optic.

3. Part 4 – Communicating sunglass opportunities and the Happy Side of Blue

4. The objective of Part 4 is with your technology understanding of the opportunity, know how to teach patients all the facts, as we know them, about the good and the bad of blue light.

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6. Look at that yellow bar, caution ahead...

Agree? The "Blue" story can be a dark one for the patient, in the way that we might describe blue.

Yes, blue light for some, means digital eyestrain, can accelerate the effects of AMD in the AMD patient, and outdoors of course, in sunlight, is of the most concern.

Aging is affected by lifestyle, genetics and nutrition so accumulated damage varies

As we said the effects of blue light are different for day and night, more of a problem during the day

Consumers would rather know both sides, make an informed decision

7. So, when you hear or talk about 'blue' light concerns, think of the positive side,

Blue is fashion and every year we get a series of new blue's that we purchase.

Blue is emotionally different for each of us and, for each, the way we use it.

Blue, as we've seen, is also healthy.

And, using that health aspect, the way we manage it can be profitable, especially in sunglasses. Let's look at each topic separately.

8. From Pantone, for Fall 2016, read along with me.

“Blue skies represent constancy as they are always above us. Grays give a feeling of stability, Red tones invite confidence and warmth, while the hot Pinkish Purples and Spicy Mustard Yellows suggest a touch of the exotic.”

Look at the top right, that’s the Fall 2016 Pantone color set. Visit Pantone for a review about colors in fashion and great words to describe the colors of eyewear frames.

9. Speaking of color, do you know which blue that is?

Look at the ways we describe blue... This is from the color Thesaurus by Ingrid Sundberg.

Which are the blue’s that you really like? Which of the names is a color that makes you feel good? Cerulean – what a great name, azure seas, Egyptian treasures of lapis...

Feeling good from blue is exactly what we’re talking about.

10. Blue can mean tranquility – look at this great calm, soft image of a cabin, on stilts, at the end of a pier, can’t you see yourself on a deckchair, something cold to drink...
Ommmmmm

11. Blue plays so many parts in our lives. It is a healthy part of life. It is required for overall cell health.

It’s automatically used by the ganglion/hypothalamic system. In fact, I expect that we’ll continue to learn how our bodies make use of blue and other of the visible wavelengths in the years to come.

In the senior eye, yellow lens absorbs blue (about 410nm) so post cataract patients typically remark about the intensity of blue.

But part of normal aging is neuron cell loss and degeneration, a decrease in ganglion cells and optic nerve axons and photoreceptors. That means for the older adult patient, keep top of mind all that you can do to maximize daylight and it’s good effects.

That means glare control in the right sunwear.

12. What is the independent doing to maximize the sunwear benefits for patients and the opportunity for the practice? Not enough!

Yes, we understand the protection part and we do a reasonable job when we talk about clear lenses but not enough about sun. How do I know?

From Vision Watch, Rx sun revenue from all of optical retail is about 10% of the business, yet it’s only 1% at the independent. Yikes, what an opportunity for Rx sun.

From the MBA 2012 analysis of independent offices, the median for prescription sun was only about 10%, the best 20-30%.

And, Plano sun is an even bigger opportunity. An increase in revenue of 20-30% is possible with the right products and promotion.

13. What's happening around you? In the US, in 2015, consumers bought 107M pair of Plano sunglasses and spent an average of \$39, in fact 69M averaged \$17 a pair. What does that say about quality and more importantly about how much the average consumer understands about the differences in sunwear?

Look at the ASP for Optical, that's you, sunglass specialty and dept. stores – so consumers will spend. They just need a reason that describes the value of better sunwear. That is a combination of brand and qualities.

Please don't be embarrassed about the charges for better sunwear, after all who benefits? The wearer does, first, and by the way – so does your practice.

14. To add value in the mind of the customer, that higher ASP is a combination of brand and all that that brand stands for.

Polarized lenses are preferred and produce improved contrast and therefore better vision. Talk polarized, the consumer has a high awareness and knows that it makes for better sunglasses.

To do the right job, know the facts, review the other parts of this course and have a very clear story to tell.

Remember, I've said this before – customers buy benefits and the value that your products and you bring to the sale.

15. How much inventory do you need – should you have?

What do the better retailers do...? It's 20-30% of inventory.

Then, they separate their sun from optical. In that way the patient/customer actually knows that you're in the sunglass business.

Then, separate the sunwear by brand. Brands attract customers and give you an excellent way to start a conversation using what you've learned.

16. What a wonderful opportunity – be an expert

Understand the brand and its story; know 3-5 bullets about why it exists, its invention, and target purchasers, major qualities

For Happy Lens, it is not only 100% UV protective, it reduces the problem blue outdoors, remember, the blue outdoors is the more dangerous

And, these lenses are different and improve the transmission of longer blue required for alertness, mood and cell health

17. What will you do, answer these tough questions, blue is...

18. There's more to light than just vision

There's more to the therapeutic side of sunglasses than UV

Blue light is an important positive influence on the body

It's essential for production of serotonin and melatonin

Good health and good feelings is a product of blue light

Outdoors, sunglasses must separate and better manage the blue

19. This is the end of Part 4.

Review this discussion; think about the information that is new.

Complete all the parts 1 through 4

For ABO credit, review the questions, when ready, log into your account at 2020mag.com/CE and click the button to TAKE EXAM

On behalf of SPY and CE Central at 20/20 Magazine, thanks for your interest in this course and the time you've spent to learn about the SPY Happy Lens.

Good luck