

# Sunglasses: Not Just For Summer Anymore

Presented by:  
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## Financial Disclosure



Bob Alexander has no financial disclosure.

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## Objectives



At the end of this course you will be able to:

- Recognize the opportunity to increase sunglass sales in winter months due to specific visual needs associated with UV exposure, reflected glare, and positioning of the sun.
- Describe health and environmental hazards associated with UV exposure and reflected glare.
- Meet an objection to a winter sunglass recommendation with the 4R technique.

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## Background

A review of basic sunglass information.

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## Background



79% use some form of vision correction\*  
63% use prescription eyewear\*  
17% wear prescription sunglasses.\*

**Nearly 50% Opportunity!**



Q3-2023 Consumer Insights, The Vision Council

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## Background



26% of adults reported wearing non-prescription sunglasses.

**Nearly 75% opportunity!**



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**Background** 

75% purchase their eyewear from their vision exam provider

However, Where are plano sunglasses being purchased?



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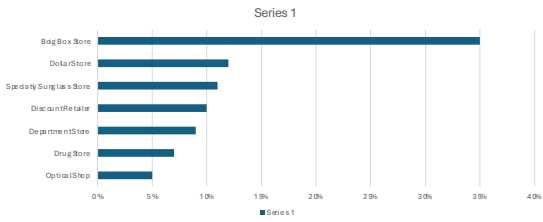
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**Background** 

Series 1



Location	Percentage
Big Box Store	35%
Dollar Store	12%
Specialty Sunglass Store	11%
Discount Retailer	10%
Department Store	9%
Drug Store	6%
Optical Shop	5%

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**Background** 

63% of adults don't wear sunglasses on cloudy or rainy days.

65% of adults are unaware of the link between UV exposure and serious eye diseases.



The Vision Council Survey

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## Position of Sun in Winter

What does the distance and position of the sun have on the need for sunglasses?

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## Angle of Sun in Winter

Snell's Law – Angle of incidence = Angle of reflection

Summer Solstice – 80°



Winter Solstice – 30°



11

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## Position of Sun in Winter



Reflections from flat surfaces are more in line with our eyes.

Sun in line of sight and with mirrors.

**Increases the need for polarized sunglasses and UV protection in winter months.**



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12

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### Position of Sun in Winter



The National Highway Traffic Safety Administration reports that **sun glare** is the **second highest** environmental-related reason for crashes, accounting for approximately **9,000** accidents per year.



The Hidden Dangers of Car Accidents Caused by Sun Glare

13

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### Position of Sun in Winter



Serious car accidents increase by 16% when glare is present.\*

AAA recommends investing in polarized sunglasses.



<https://www.apadalegroup.com/blog/61066d-by-the-light-sun-glare-not-a-good-defense-for-a-car-accident.htm> - <https://www.aaa.com/pressroom/2016/01/20/aaa-recommends-polarized-sunglasses-to-reduce-car-accidents>

14

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### Distance of the Sun from Earth



#### Aphelion

The point of the earth's orbit at its farthest point from the sun.

In 2024, the aphelion was July 5<sup>th</sup>, when the sun was 94,510,539 miles from the Earth.\*



<https://www.aaa.com/pressroom/2024/07/05/aaa-recommends-polarized-sunglasses-to-reduce-car-accidents>

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**Relationship of Earth to the Sun** 

**Perihelion**

The point of the earth's orbit at its closest point to the sun.

In 2024, the perihelion was January 7<sup>th</sup>, when the sun was 91,404,095 miles from the Earth.\*



\*<http://www.nasa.gov/content/earth-perihelion-and-astronomical-equinoxes-2004>

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16

**Relationship of Earth to the Sun** 

In winter, the sun is nearly 5 million miles closer to Earth than in summer.

*Does this increase our exposure risk to UV?*

**NO!**



\*<http://www.nasa.gov/content/earth-perihelion-and-astronomical-equinoxes-2004>

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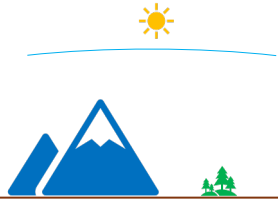
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17

**Relationship of Earth to the Sun** 

UV risk increases with an increase in elevation but does not increase because the sun is closer to Earth.\*

Elevation decreases the amount of ozone that can filter UV; therefore, increasing UV exposure.



\*<https://www.epa.gov/air-quality/uv-exposure-at-elevation>

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18

## Winter Sports



UV exposure by 10% for every 1000-meter increase in elevation.

“Fresh snow is a particularly good reflector and almost doubles a person’s UV exposure.”

***Increases the need for polarized sunglasses and UV protection in winter months.***



<https://www.who.int/news-room/fact-sheets/detail/uv-radiation>  
and <https://www.who.int/news-room/fact-sheets/detail/uv-radiation>

19

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## Cloud Enhancement

What effect do clouds have on UV exposure risk?

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## Cloud Enhancement



On average, clouds reduce the amount of UV-A and UV-B that reaches the Earth’s surface.

However, we must also consider the ‘cloud enhancement’ of UV.



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**Overcoming Objections**

**Reveal why the objection was presented**  
 Are they apprehensive? – May not believe you  
 Are they confused? – Not enough information to make a decision  
 Is there an obstacle? – Have a valid point about pushback  
 Ask more open-ended questions to find the real need

**Recognize & Respond**

**Resolve the objection**  
 Apprehension - Provide proof  
 Confusion - Provide correct information  
 Obstacle - Refocus on what you have to offer

**Recommend**  
 Is it OK to proceed?

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**Reveal**

**ECP** – Your occupation has changed, you're now working full-time as a rideshare driver. That sounds interesting, how do you like it?

**Patient** – Yes. I enjoy it! It's provided me the freedom to spend more time with the kids and participate in their school activities.

**ECP** – That's great! Your occupation has prompted Dr. Collins to recommend polarized sunglasses to wear over your contacts. She's adamant about wearing the right sunglasses for anyone who spends as many hours outdoors in the daytime as you do. She's recommended you wear a polarized sunglass over your contacts.

**Patient** – She and I talked about that, but I don't think it's necessary to buy those now. I mean it's the middle of winter, I think I'll wait until summer to purchase sunglasses.

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**Recognize & Respond**

**ECP** – You're right about needing to wear sunglasses in summer. We typically spend more time outdoors in summer, and sunglasses are a staple for summer activities. But were you aware of the need for polarized sunglasses in the winter? Especially for driving.

**Patient** – I thought sunglasses were just for the summer when the sun is brightest.

**ECP** – True, the sun is brighter in the summer and our days are longer, exposing us to more sunlight each day. But there are some winter-specific conditions we need to be aware of that can affect your eye health and possibly your overall safety while driving.

**Patient** – Really?! Like what?

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### Resolve

**ECP** – During winter months, the sun is lower in the sky increasing the chances that bright sunlight will be in more direct alignment with your line of sight. The lower sun also increases the chance of bright reflections interfering with your vision.

**Patient** – Like in the morning when the sun is either in my eyes or in my mirrors? Now that you mention it, that can be bothersome. And I do notice the reflections from a wet road seem to always be in my way seeing well recently.

**ECP** – Yes. With the sun being lower, it can cause issues with direct and reflected sunlight. Did you know that car accidents increase by over 15% when glare is present?

**Patient** – OK. So this is starting to make more sense. But what about my eye health?

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### Resolve

**ECP** – You’re familiar with UV, right?

**Patient** – Yes. I wear sunscreen a lot.

**ECP** – Did you know that UV can be reflected off snow? Nearly 80% of the UV from the sun can be reflected from the snow. The best way to effectively protect your eyes from reflected UV is to wear a lens that blocks 100% in a large sunglass frame to keep stray light from getting past it to your eyelids, etc.

**Patient** – OK. But what about the polarized thing? What’s that for?

**ECP** – Polarization increases your visual comfort by simply reducing the bright reflections from snow, wet roads, etc.

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29

### Recommend

**ECP** – Polarized lenses help protect your eyes against UV exposure and increase your visual comfort.

**Patient** – OK, that makes way more sense now. But your sunglasses are so expensive.

**ECP** – When you look at the value of your purchase, they really aren’t. Our frames are optical quality frames, meaning they can be adjusted and stay adjusted, they are much more robust than less expensive options. Also, you and I will work together to custom-build a lens color/frame combination that is best suited for your driving and your taste in fashion. Finally, you get me, an optician to help with any needs/questions you have about your new sunglasses.

**Patient** – This sounds like more of an investment than a simple purchase. Your explanation makes total sense.

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## Recommend

**ECP** – Would you like me to show a lens color that would work best for your driving?

**Patient** – Yes. I didn't know there was so much to think about when considering sunglasses or the need to wear them in winter.

**ECP** – Yes. There's a lot to consider. Let's go to the sunglasses and try on a few options.

**Patient** – Perfect! This sounds fun.

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