

Clear, Comfortable Vision in Winter
By Samuel Shippee, O.D.
Diplomat, American Board of Optometry
Shippee Family Eye Care, P.C.

With our holiday season upon us, our thoughts turn to cozy fireplaces, friendly gatherings in winter sweaters and long cold snowy nights. The winter season creates new opportunities to try winter sports, start a new indoor hobby or simply slow down to a contemplative pace and enjoy your reading list. The winter months also create a perfect storm for environments that can create reduced visual acuity and visual comfort related to dry eyes.

Clear, comfortable vision is a result of healthy surface tissue, clear intra-ocular lens, healthy retina and healthy intra-cranial visual pathways. Dry Eye Disease or Dry Eye Syndrome, is the name given to a group of issues that result in damage and discomfort to the ocular surface. In Dry Eye Disease (DED), changes to tear production lead to patient symptoms. The most common symptoms of DED are; scratchy/sandy sensation, redness, watering/tearing, grittiness, light sensitivity and vision reduction. These symptoms vary in severity of presentation with every person, and can range from annoyance to visually disabling.

A major contributing factor to patient symptoms is their individual environment. Patient's that are exposed daily to aeriated chemicals, cleaning products, sand, dust, smoke, sawdust or moving air, are more likely to be symptomatic. If you are regularly exposed to these ocular irritants, take steps to minimize your eye exposure. Choosing safety glasses that have sealed sides or larger surfaces are more protective, and in some cases a full-face shield may be very advantageous or mandatory. Patients with extensive screen time at work or home reduce their natural blink rate, thereby creating conditions for dry eye exacerbation. These circumstances are unique to each person's work requirements and are not universal to all people.

What is universal to all Northerners, is the cycle of heating during these long winter months causing dry work and living spaces. When we turn our thermostats up after our lovely fall season, we begin the process of drying out our homes and the air inside it. The dehydration of our home atmosphere creates an extremely low humidity point in our homes, where that vacuum of moisture will then seek to draw moisture from any available source; from steamed broccoli, to a hot shower and even your eyes. Putting a pot of water on your hot wood stove or running a humidifier in your home, can greatly improve the air quality and in turn increase your ocular comfort when we are cooped up during winter. Reading from a book, yes a book - with real paper, is healthier for your visual system than reading from an electronic device.

The evaporation of your tears is generally a normal process in small amounts. Patients that are susceptible to ocular surface evaporation are generally producing insufficient tear volume. The tears of the eye are necessary to maintain healthy cornea and conjunctival tissue, as well as maintaining a uniform surface to view through. Patients that do not produce an adequate volume of tears or under produce the oil component that make up tears, are most likely to be affected from DED during winter.

Tears are made from mucin from goblet cells of the conjunctiva, oil from the meibomian glands of the lids and aqueous from the lacrimal glands. These three ingredients, must be in adequate proportion to

have stable, healthy tears. Diagnosing which component of production is insufficient, allows your optometrist to customize treatment for each subtype of Dry Eye Disease. The oil production of the meibomian glands and the aqueous production from the lacrimal gland, are the two most common modifiable factors in managing patients suffering from dry eye symptoms.

Your eye care physician may prescribe over the counter lubricating drops, gels, or ointments, and in some cases oral supplements to enhance your current tear production. More advanced disease may require a prescription for medical eye drops or oral medications to stimulate increased production. Your eye care physician may also suggest a procedure to reduce tear drainage. Finally, in severe cases, some eyes require surgical intervention to help preserve sight in non-complaint or non-responsive patients.

Dry eye patients should seek treatment for their symptoms, as long-term neglect can create irreversible changes to tissue and vision loss. Ask your optometrist about customized solutions for your dry eye complaints, and begin your journey towards happier and healthier eyes heading into the year 2020. At Shippee Family Eye Care, we wish you a winter full of joy. – Drive safe, laugh often, and stay warm.