

# Supporting Eye Health Naturally and VDU Eyecare



Jifunza Rukiya Jaha  
Naturopath & Nutritional Therapist  
UNISON Health and Safety Rep  
September 2020

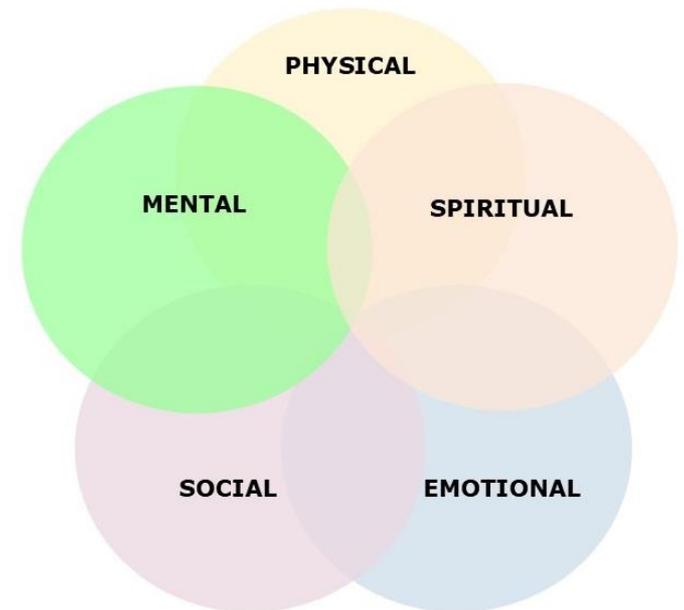
## ❖ **Unison Health and Safety Reps**

promote better health and safety in the workplace



❖ **Naturopath** applies natural therapies to promote the body's own self-healing mechanism; placing emphasis on holistic health and how to promote it, rather than on disease and how to suppress it.

❖ **Nutritional Therapists** address nutritional imbalances and apply nutritional and lifestyle therapeutic approaches with a strong emphasis on food as medicine, to stimulate and enhance the body's natural healing abilities.



**The information shared is not to replace the need to have regular eye tests, or to speak to your Optometrist about eye health concerns**



**Eye care voucher application form for an eyesight test attached in Files/Chats**

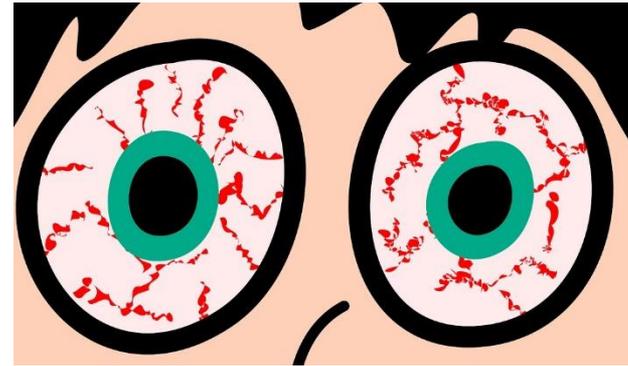
Providing an overview of the following:



- ❖ Health and Safety in working with visual display units (VDUs)
- ❖ Eye massage and exercises
- ❖ Nutritional support
- ❖ The importance of Hydration
- ❖ Good hygiene practices
- ❖ Lifestyle adjustments
- ❖ Exercise
- ❖ Sleep Hygiene



# Digital Eye Strain

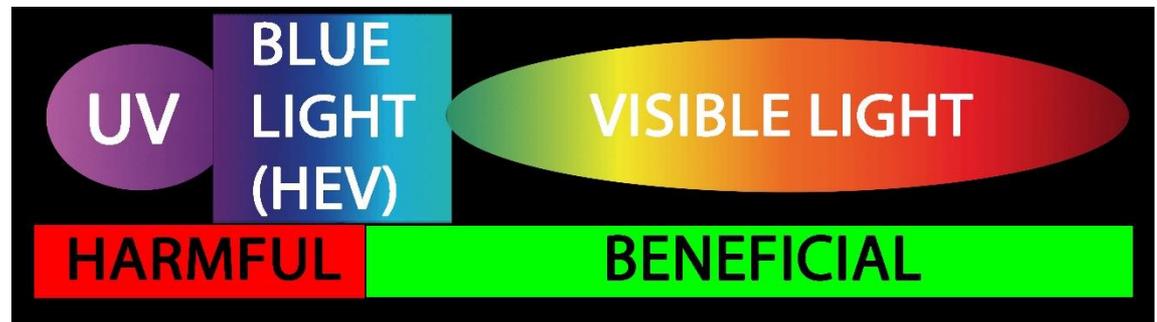


## Common symptoms include:

- ❖ Dry eyes
- ❖ Watery eyes
- ❖ Sore eyes
- ❖ Irritation, burning, itchiness
- ❖ Red eyes
- ❖ Eye strain and fatigue
- ❖ Headaches
- ❖ Discomfort in the eye
- ❖ Difficulties focusing
- ❖ Double or blurred vision
- ❖ Light sensitivity

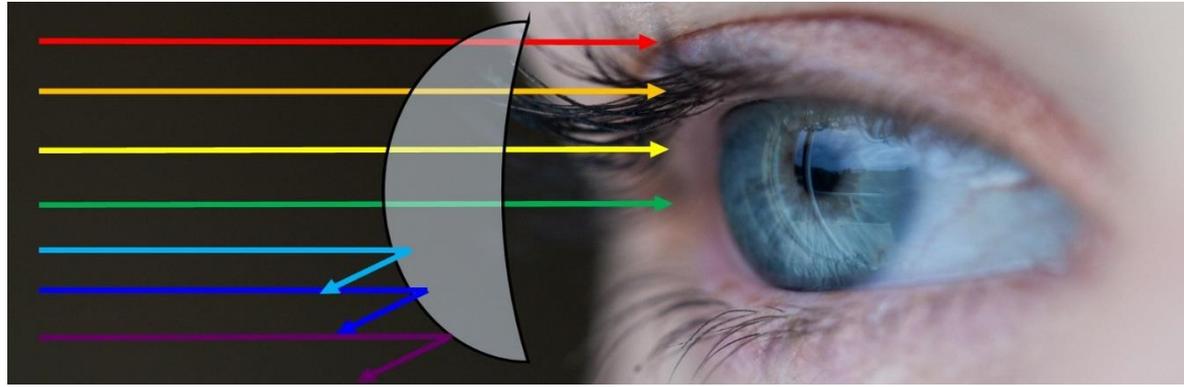


# Blue Light



- ❖ Blue light wavelengths are one of the shortest, highest energy wavelength we as humans can perceive.
- ❖ Blue light wavelengths flicker faster and produce higher energy, penetrating deep into the eyes, creating a glaring effect, impacting the tissues and structures in the eye
- ❖ **Studies suggest that, over time, over exposure to the blue end of the light spectrum could cause long-term damage, this includes retinal damage and its effects contributing to age related macular degeneration and Myopia (short-sightedness).**
- ❖ **Blue light exposure in the evening and at night has been shown to affect the quality of sleep, having a disruptive effect on sleep hormone melatonin that helps us sleep**
- ❖ Although daytime exposure (the sun produces blue light) helps regulate our circadian rhythm, boosts alertness and help elevate mood

# What can we do to reduce blue light exposure:



- Limit digital device usage

Try setting a timer as a reminder for Screen Timeout

- Turn on Blue light filter on your digital devices if using after daylight hours

Try enabling the “night mode” setting on your device in the early evening which reduces blue light. Many phones and tablets have this as a built-in function, easily found under “settings” and/or “display and brightness.

- Use Blue Light protection lenses

Can be a good option for people if working in front of a computer all day in an office —many glasses will also filter blue light from fluorescent lights

- Use a Screen Protector

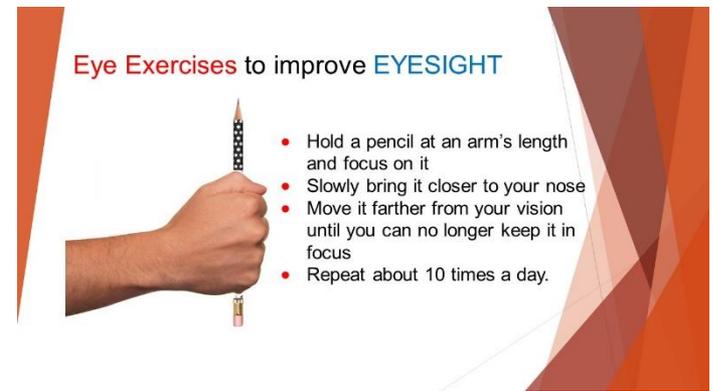
They filter blue light all the time and can be a good option if you spend a large part of your day on the computer

# Health and Safety in working with visual display units (VDUs)



- **Health and Safety (Display Screen Equipment) Regulations 1992**, the regulations do suggest that **breaks should be 'periodically' taken**.
- The regulations suggest that each person's work should be designed to include a mix of tasks, some screen based and some non-screen based, to **allow natural breaks from concentrating on the screen, sitting in the same position or repetitive input work**. If this is not possible, **deliberate breaks must be introduced**.
- **As a minimum guideline at least 5 minutes in every hour should be spent away from the screen,**
- Try the **20-20-20 rule** - **every 20 minutes, look up from your screen at something about 20 feet away for about 20 seconds**. This gives the muscles in your eyes a chance to relax.
- **The Health and Safety Executive (HSE) suggest that short, frequent breaks are better than less frequent longer breaks**, so a 5-10 minute break after 50-60 minutes is better than a 20 minute break every 3 hours.
- It is important that you complete a **Display Screen Equipment (DSE) workstation assessment** to identify risks and hazards that might impact your health and wellbeing.

# Eye massage /exercises



- ❖ **Blinking:** keeping the entire surface of the cornea hydrated through blinking throughout the day. You may have to consciously blink more often to keep your eyes moist and comfortable
- ❖ **Give Your Eyes a Massage** - Simply rub your palms together until they warm up, close your eyes, and cup your hands over your eyes loosely, for 30secs to 1min.
- ❖ **Exercises:** Here are 3 to get you started.
  - 1) Trace a sideways figure eight with your eyeball in one direction approx 10 times, and then in the other direction, while looking away from your screen.
  - 2) Roll your eyes in a clockwise direction for 3-5 seconds. Next, roll your eyes in a counter-clockwise direction for 3-5 seconds. Repeat this exercise 5 times, making sure to blink your eyes in between each round.
  - 3) Hold a pencil at arm's length and focus on the tip. Slowly bring it closer to the eyes until it is about 6 inches from the eyes, then slowly bring it back out to arm's length. Keep the focus on the tip the entire time. Repeat 6-12 times per day.

# Nutritional Support

## Foods rich in Carotenes ~ found in all plant foods

- ❖ Carotenoids are fat-soluble highly coloured pigments ranging from red to violet hues
- ❖ **Beta carotenes**, best known carotenes that the body is able to convert to vitamin A in the body, which is vital for eye health, sources include: carrots, sweet potatoes, squash, mangoes, yams and green vegetables such as broccoli and spinach
- ❖ **Lutein** and **Zeaxanthin** are major carotenoids in the human macula and retina. Antioxidant rich, promote eye health; reducing risk of cataracts and age-related macular degeneration.
- ❖ **Block blue light** from reaching the underlying structures in the retina, thereby reducing the risk of light-induced oxidative damage



# Nutritional Support

**Foods rich in flavonoids** ~ phytonutrients (plant chemicals) found in almost all fruits and vegetables.

- ❖ **Anthocyanins** and **anthocyanidins** can be found in a range of blue, purple and red fruits, including blueberries, bilberries, grapes, currants and aubergine.
- ❖ Support small blood vessel health by repairing damaged collagen in blood vessel walls and capillaries – including those in the eyes
- ❖ May inhibit the start and progression of AMD by way of their antioxidant properties



**Essential Fats** ~ Several studies suggest omega-3 fatty acids may help protect adult eyes from macular degeneration and dry eye syndrome.

- ❖ Around 30% of your retina is composed of DHA, an omega 3 fatty acid
- ❖ Omega 3 sources include: avocado, olive oil, oily fish, flaxseed oil, nuts and seeds
- ❖ Omega 3's have anti-inflammatory properties and are vital for the maintenance of healthy cell function.





## Hydration

- ❖ Water plays a vital role in the body contributing to the maintenance of normal physical and cognitive functions, these include **transporting nutrients along with oxygen to our cells**
- ❖ Maintaining hydration is vital for our body systems to function and necessary to **support moisture and lubrication of the mucous membrane, including the eye** (known as the conjunctiva)
- ❖ The function of the conjunctiva is to **provide lubrication for the eyes to prevent the eyes from drying out**



## Practice good hygiene

- ❖ Keep your hands away from your face and eyes
- ❖ When you touch your eye, whatever is on your fingers goes right onto your eye's surface
- ❖ **Before you touch your eyes**—and before you put in or remove a contact lens—**wash your hands thoroughly**. Some germs and bacteria that come from your hands can cause eye infections, like bacterial conjunctivitis (pink eye).
- ❖ Keep cosmetics and chemicals out of the eyes.
- ❖ Thoroughly clean off old make-up at the end of the day
- ❖ If you wear contacts, clean and store them properly

# Lifestyle adjustments



- ❖ **Smoking is damaging to every cell in our bodies**
- ❖ It can damage the optic nerve
- ❖ **Smokers are much more likely to develop age-related macular degeneration, which is the most common cause of sight loss in the UK, and cataracts, than non-smokers**
- ❖ The smoke also irritates the mucous membrane (conjunctiva) and can cause blurriness and dryness
- ❖ **Excessive alcohol consumption can have a detrimental effect on your eye health.**
- ❖ Some studies have shown the **relationship between alcohol consumption and the risk of developing Eye diseases such as cataract, glaucoma, age related macula degeneration and diabetic retinopathy.**
- ❖ Consuming alcohol within the recommended daily limits; drinking less than 14 units per week, and having alcohol free days, is one of the best ways to maintain good health, healthy eyes and good vision.

# Exercise

Several studies have found a link between **regular exercise and reducing the risk of eye diseases.**

- ❖ Exercise increases circulation which provides oxygen and nutrients to your body's cells and carries waste away from your tissues.
- ❖ Exercise may reduce the risk of sight loss from narrowing or hardening of the arteries, high blood pressure and diabetes
- ❖ Running or walking can help decrease the risk of age-related cataract
- ❖ Moderate intensity, low-impact exercise can help reduce eye pressure in young adults with glaucoma
- ❖ Exercising three or more times per week can reduce risk of developing wet age-related macular degeneration



# Restorative sleep



- ❖ Sleep plays a vital role in the maintenance of our physical and cognitive functions
- ❖ A good night's sleep also nourishes your eyesight

## Common Side Effects of poor sleep include:

- ❖ **Eye Spasms:** Low Magnesium is associated with stress, anxiety and difficulty relaxing
- ❖ **Dry Eye:** If your eyes don't receive the lubrication they need to function properly, you may experience dry, itchy, and red eyes. This may lead to light sensitivity and eyestrain.
- ❖ **Eye Infection:** Getting adequate rest every night supports your immune system. The ocular immune system protects the eye from infection

**GOOD SLEEP HYGIENE;** establish a consistent bedtime routine. Switch off your phone, pc and Wi-Fi and unwind before bed to promote a healthy sleep cycle.

# Summary

- ❖ Apply for an eye test voucher
- ❖ Get regular eye exams and check-ups to evaluate your eye health
- ❖ Reduce blue light exposure
- ❖ Complete a DSE assessment and discuss identified needs with your line manager
- ❖ Try the 20-20-20 rule - every 20 minutes, look up from your screen at something about 20 feet away for about 20 seconds
- ❖ Remember to blink more often to keep your eyes moist and comfortable
- ❖ Give Your Eyes a Massage
- ❖ Practice Eye muscle exercises daily
- ❖ Eat fruits and vegetables and quality fats
- ❖ Maintain hydration
- ❖ Practice good hygiene
- ❖ Exercise regularly
- ❖ Incorporate consistent and good sleep hygiene practices
- ❖ Smoking and excessive alcohol consumption can have a detrimental effect on your eye health.



# References:

- 5 tips and exercises for eye strain relief – <https://www.youtube.com/watch?v=rPfCtJ1PX9I>
- Chang A, Aeschbach D, Duffy J, Czeisler C. Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness. Proceedings of the National Academy of Sciences, 2015 Jan 27;112(4):1232-37. Available at: <https://www.pnas.org/content/112/4/1232>
- Display Screen Assessment (DSE) Enterprise E-learning ~ <https://www.safetylearning.co.uk/login/barnet?notloggedin=true>
- Eye exercises - <https://www.youtube.com/watch?v=o0Da4MBCyoY>
- Eye benefits of omega-3 fatty acids. Available at: [https://www.allaboutvision.com/nutrition/fatty\\_acid\\_1.htm](https://www.allaboutvision.com/nutrition/fatty_acid_1.htm)
- Health and Safety Executive (HSE) Working safely with display screen equipment. Available at: <https://www.hse.gov.uk/msd/dse/>
- How to exercise your eyes - <https://www.wikihow.com/Exercise-Your-Eyes>
- Images from Google
- Look after you eyes ~ <https://www.nhs.uk/live-well/healthy-body/look-after-your-eyes/>
- McCrann S, Loughman J, Butler JS, Paudel N, Flitcroft DI. Smartphone use as a possible risk factor for myopia. Clinical and Experimental Optometry, May 2020. Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/cxo.13092?af=R>
- Theophanous C, Modjtahedi BS, Batech M, Marlin DS, Luong TQ, Fong DS. Myopia prevalence and risk factors in children, Aug 2018. Available at: <https://pubmed.ncbi.nlm.nih.gov/30214142/>
- Unison guidance on Eye Care at work. Available at: <https://www.unison.org.uk/get-help/knowledge/health-and-safety/eye-care/>
- Vision Direct . How much time do we spend looking at screens? Available at: <https://www.visiondirect.co.uk/blog/research-reveals-screen-time-habits>
- Wu J, Cho E, Willett WC, Sastry SM, Schaumberg DA. JAMA Ophthalmol. Intakes of Lutein, Zeaxanthin, and Other Carotenoids and Age-Related Macular Degeneration During 2 Decades of Prospective Follow-up. Dec 2015. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5119484/>