***sarvendriyanam* nayanam pradhanam**

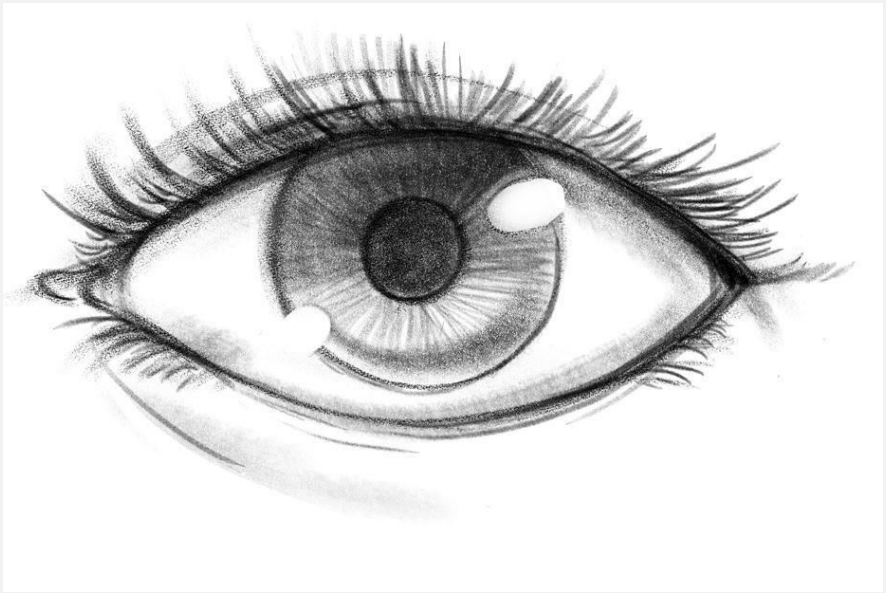
'SEEING CLEARLY: A COMPREHENSIVE OVERVIEW OF EYE CARE AND COMMON EYE DISEASES

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WELCOME TO SEE CLEARLY

- We'll be discussing the crucial topic of eye health - Before we dive into the specifics, let me emphasize the significance of good eye health.
- "Our eyes are not only the windows to the world but also to our overall well-being"
- Throughout this presentation, we'll cover a variety of topics related to eye health, from the basics of eye anatomy to practical tips for maintaining healthy eyes in the digital age.
- So, let's get started!



Anatomy of the eye

Common eye disease

Tips for healthy eyes

Protecting your eyes

Refractive errors

Digital eye strain

Vision changes with age

THE MARVELOUS EYE 👀







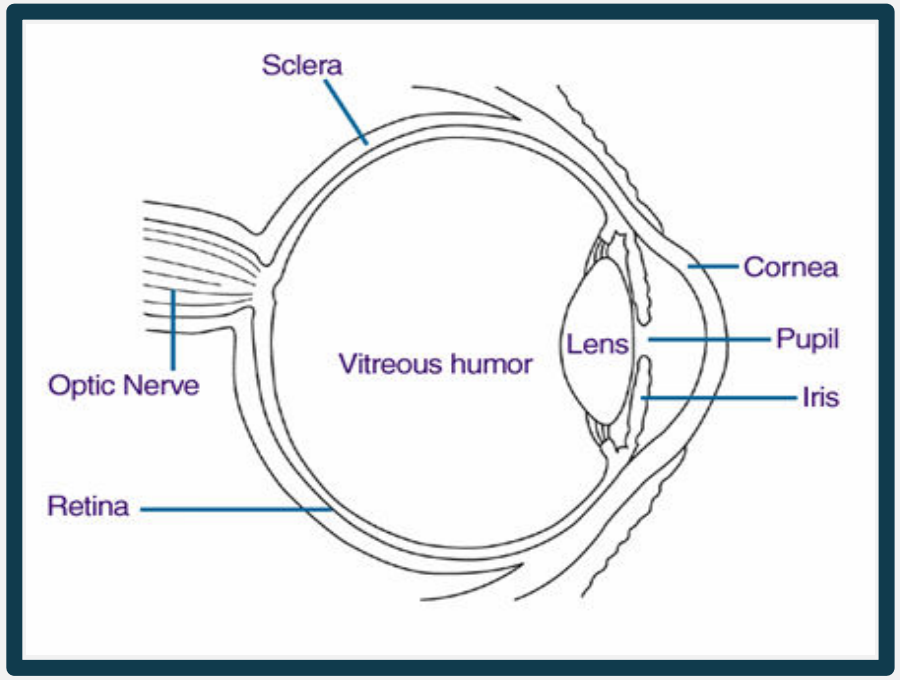
The eye is a remarkable organ responsible for vision, one of our most vital senses.

Clear vision is essential for daily activities, work, and enjoying hobbies.

It allows us to perceive the world around us, appreciate beauty, and connect with our surroundings.

ANATOMY OF THE EYE

The human eye is a complex and fascinating organ responsible for vision. Let's explore its main components:



CORNEA
- The transparent outermost layer that refracts light entering the eye

IRIS
- The colored part of the eye that controls the size of the pupil.

LENS
- Located behind the iris, the lens focuses light onto the retina.

RETINA
- The light-sensitive tissue at the back of the eye, containing photoreceptor cells.

OPTIC NERVE
- Transmits visual information from the retina to the brain.

"Our eyes are marvels of engineering, consisting of several essential components working together to allow us to perceive the world around us"

TIPS FOR HEALTHY EYES???



Eyesight: The Window to Your World - How Can You Keep It Crystal Clear?

Let's explore some most important tips for maintaining healthy eyes

MAINTAINING HEALTHY EYES

Our eyes deserve proper care, just like any other part of our body. Let's explore some essential practices to maintain healthy eyesight.

Importance of regular eye exam

- Eye exams help detect refractive errors and eye diseases.
- They are essential even if you don't experience any vision problems.

Maintaining good eye hygiene

- Wash your hands before touching your eyes to prevent infections.
- Avoid rubbing your eyes excessively.

Protecting your eyes

- Wear protective eyewear during sports, construction work, or any hazardous activities.
- Shield your eyes from harmful UV rays by wearing sunglasses outdoors.



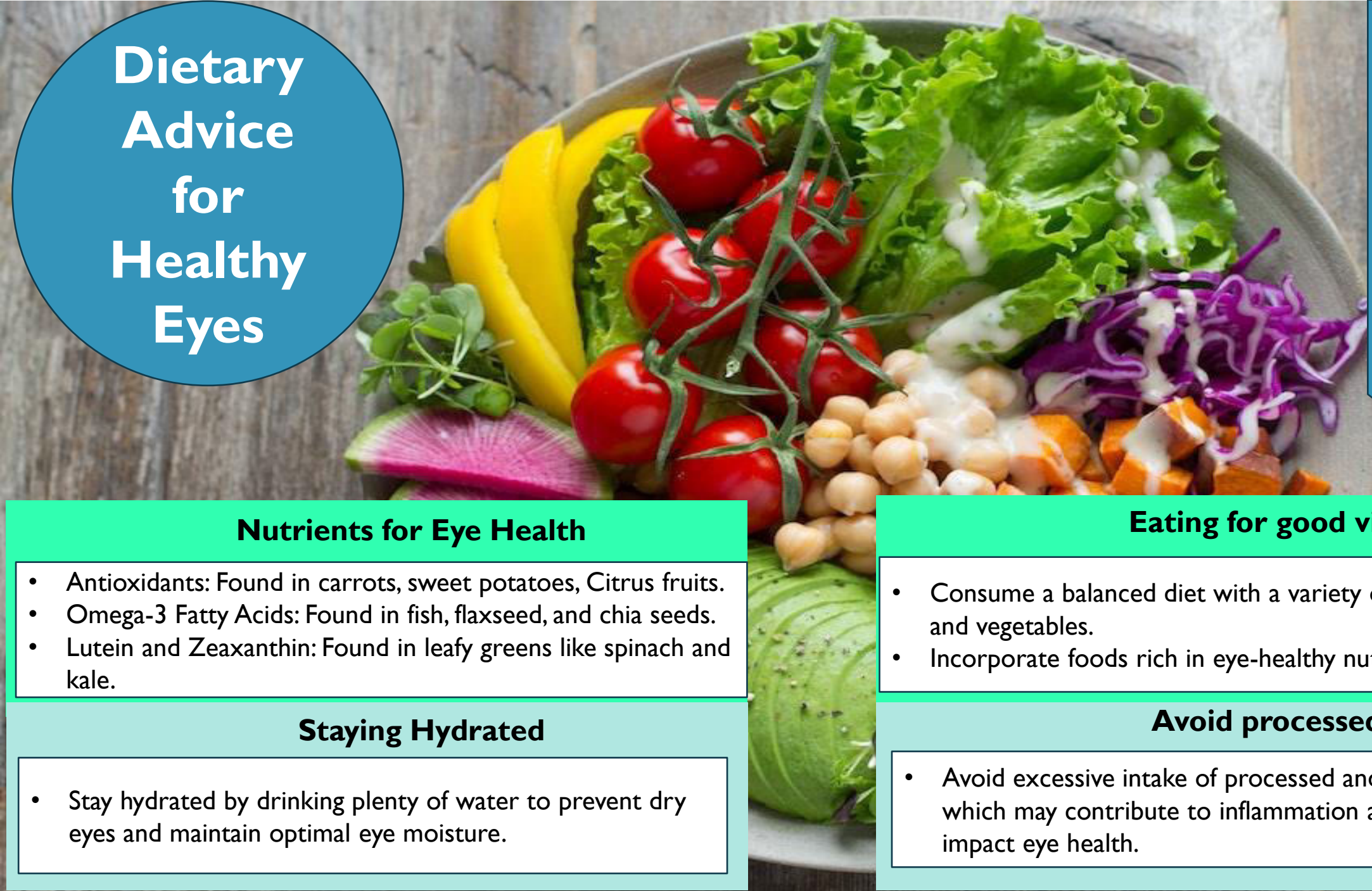




Would you like to know some dietary tips to improve your eye health?



Dietary Advice for Healthy Eyes



A healthy diet is crucial for maintaining good eye health because it provides essential nutrients and antioxidants that support vision and protect against eye diseases.

Nutrients for Eye Health

- Antioxidants: Found in carrots, sweet potatoes, Citrus fruits.
- Omega-3 Fatty Acids: Found in fish, flaxseed, and chia seeds.
- Lutein and Zeaxanthin: Found in leafy greens like spinach and kale.

Staying Hydrated

- Stay hydrated by drinking plenty of water to prevent dry eyes and maintain optimal eye moisture.

Eating for good vision

- Consume a balanced diet with a variety of colorful fruits and vegetables.
- Incorporate foods rich in eye-healthy nutrients.

Avoid processed food

- Avoid excessive intake of processed and sugary foods, which may contribute to inflammation and negatively impact eye health.

Changing lifestyle habits can improve the quality of vision by reducing eye strain and promoting overall eye health.







Avoiding smoking is crucial for maintaining good vision as smoking is linked to an increased risk of developing age-related macular degeneration and cataracts, both of which can lead to vision loss over time.

QUIT SMOKING

Regular physical activity not only benefits overall health but also helps promote healthy blood flow to the eyes, which can reduce the risk of eye diseases and support optimal vision.

EXERCISE REGULARLY

Getting an adequate amount of sleep is essential for eye health as it allows the eyes to rest and recover from daily strain, reducing the dry eyes, eye fatigue, and other vision-related issues.

ADEQUATE SLEEP

Illuminating Eye Care Through Lifestyle Changes

EYE EXERCISES

Prolonged screen time and stressful work environments can lead to eye strain and discomfort. Eye exercises can help reduce eye strain, improve focus, and relieve stress.

BLINKING EXERCISE



- Just blink your eyes rapidly for 20 seconds.
- You can do this a few times throughout the day.
- Blinking helps to moisturize your eyes, distribute tears, and prevent dryness, making your eyes feel more refreshed and comfortable.

NEAR – FAR EXERCISE



- To do this exercise, focus on an object that's close to you, like a pen or your finger, for about 10 seconds.
- Then, shift your focus to an object far away, such as a wall or a tree, for another 10 seconds.
- Keep alternating your gaze between the near and far objects for a few repetitions.
- This exercise helps prevent eye strain and improves your eye's ability to switch focus easily.

20 - 20 - 20 EYE RULE



- The 20-20-20 Rule suggests that every 20 minutes, you take a 20-second break and look at something 20 feet away.
- This exercise helps reduce eye fatigue caused by staring at screens or doing close-up tasks.
- By giving your eyes a short break and looking into the distance, you allow them to relax & refocus, reducing strain.





EYE DISEASES – AGE WISE



Common eye problems in children

- Refractive Errors
- Amblyopia (Lazy Eye)
- Strabismus (Crossed Eyes)
- Conjunctivitis (Pink Eye)
- Vitamin A deficiency – Night Blindness



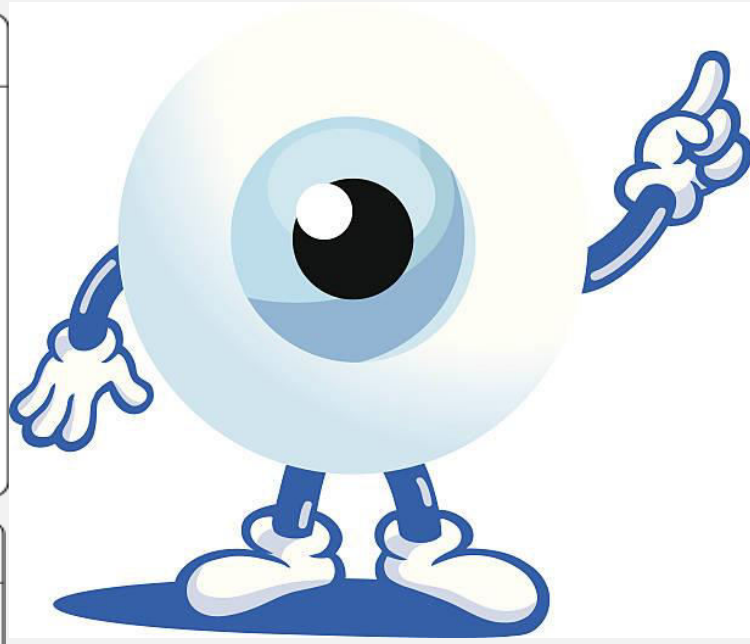
Common eye problems in Young adults

- Refractive Errors
- Computer Vision Syndrome (Digital Eye Strain)
- Dry eye



Common eye problems in older people

- Cataract
- Glaucoma
- Age related macular degeneration
- Diabetic Retinopathy



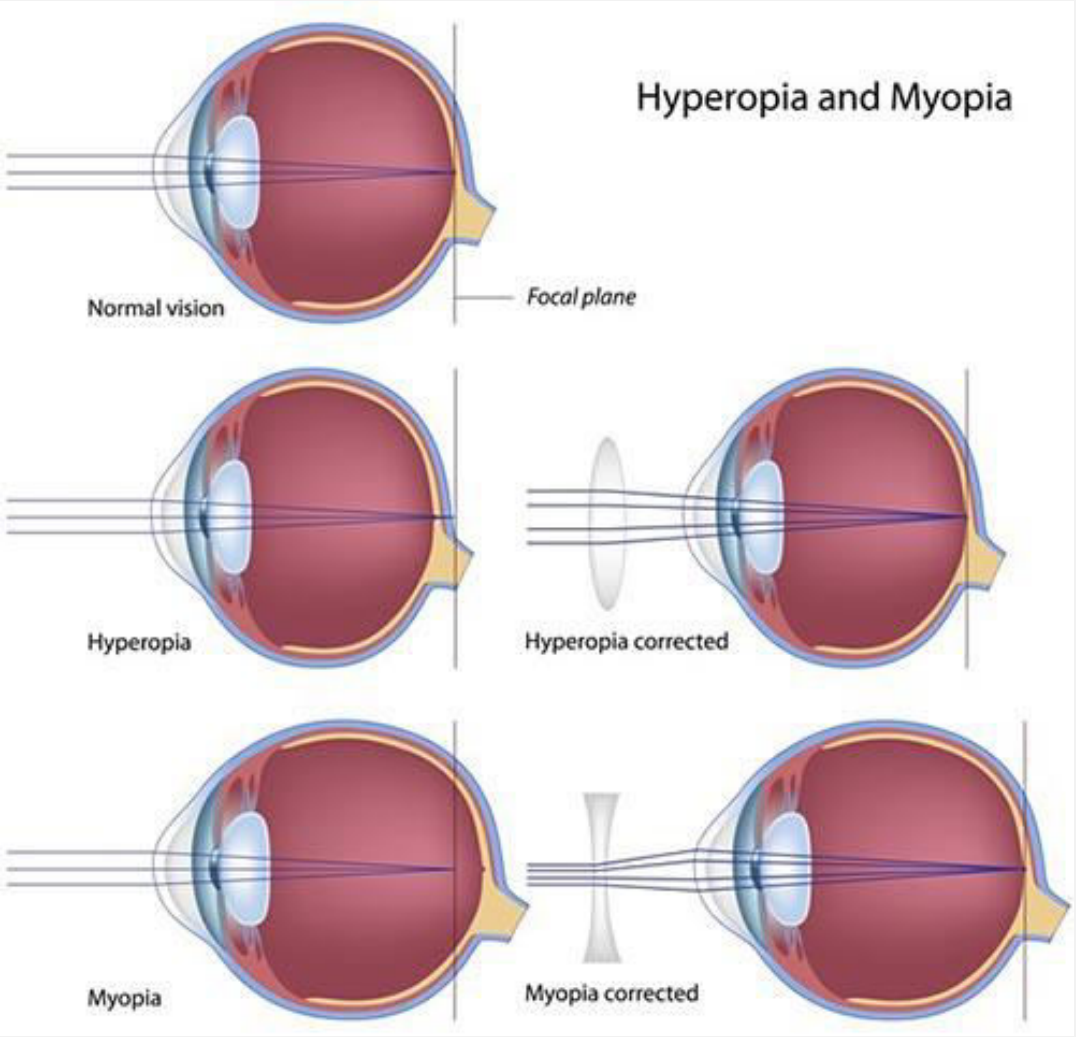
Disease common in all age group

- Allergic conjunctivitis
- Infective conjunctivitis


Common eye problems in children

Refractive Errors

- The most common refractive errors in children are myopia (nearsightedness), hyperopia (farsightedness), and astigmatism.
- Myopia: Distant objects appear blurry, while close objects are clear.
- Hyperopia: Close objects appear blurry, while distant objects may be clear.
- Astigmatism: Blurred vision due to an irregularly shaped cornea or lens, causing distortion of images at all distances.
- These conditions can be corrected with prescription eyeglasses or contact lenses.
- Regular eye examinations can help identify and manage refractive errors effectively.



AMBLYOPIA (LAZY EYE)

Amblyopia is a condition where one eye has reduced vision compared to the other due to abnormal visual development during early childhood.

Causes:

It usually occurs when one eye has a much higher refractive error or when there is a misalignment of the eyes (strabismus).

Suppression:

When one eye is stronger, the brain may start to ignore the input from the weaker eye, leading to further vision loss.

Detection:

Amblyopia is often detected during routine eye exams in children.

Early detection is crucial because treatment is most effective during the sensitive period of visual development, which typically ends around the age of 7 or 8.

Treatment:

If detected early, amblyopia can often be treated successfully by patching the stronger eye to force the weaker eye to develop properly.

Vision therapy can sometimes be beneficial to improve visual skills and coordination between the eyes.



STRABISMUS (CROSSED EYE)

Strabismus is a misalignment of the eyes, where one eye is not properly aligned with the other.

As a result, the eyes may point in different directions, leading to crossed eyes, wall-eyed (exotropia), upward (hypertropia), or downward (hypotropia) deviations.

Causes:

Strabismus can result from various factors, including problems with the eye muscles, nerve-related issues, or a combination of both.

It can be present from birth or develop later in life due to trauma or neurological conditions.

Impact on Vision:

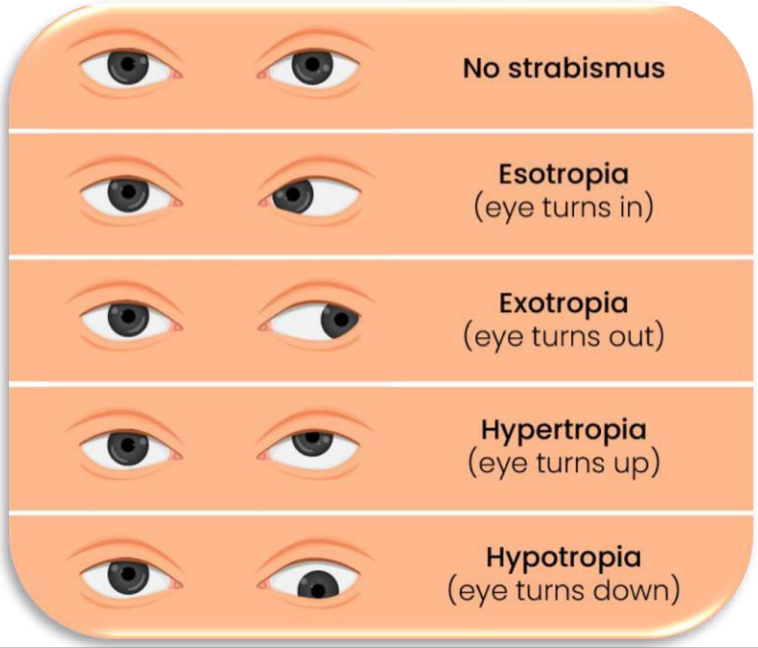
Strabismus can cause double vision (diplopia) or the brain may suppress the image from one eye to avoid confusion (suppression).

This can lead to amblyopia in the suppressed eye if left untreated.

Treatment:

The treatment for strabismus depends on its severity and underlying cause.

It may involve prescription eyeglasses, eye patches, or eye exercises to strengthen weak eye muscles.



CONJUNCTIVITIS (PINK EYE)

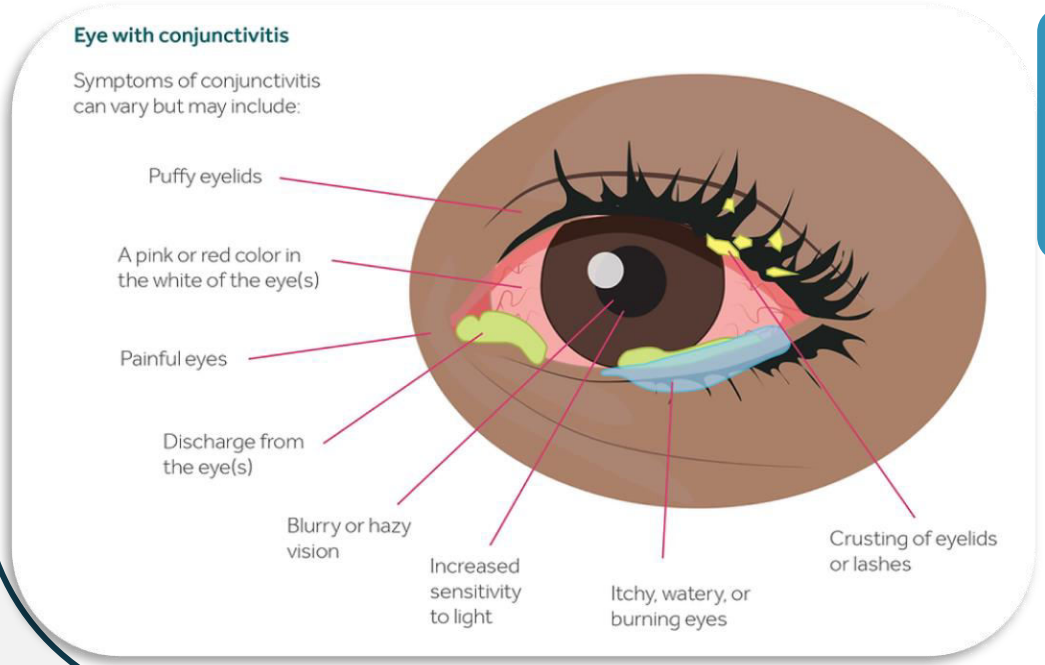
Conjunctivitis is an inflammation of the conjunctiva, the thin, transparent tissue that covers the white part of the eye (sclera) and the inner surface of the eyelids.

Types:

There are several types of conjunctivitis, including viral, bacterial, allergic, and irritant conjunctivitis.

Treatment:

Treatment depends on the cause and may include antibiotic eye drops, antihistamine eye drops, or artificial tears. Warm and cold compresses as indicated.



Types of conjunctivitis and its impact on vision

Bacterial Conjunctivitis: Caused by bacteria, resulting in eye redness, discharge, and crusting of eyelids.

Impact on vision - The vision may be temporarily blurred or obstructed due to the presence of discharge, crusts, or eye irritation.

Viral Conjunctivitis: Caused by viruses and spreads easily. It typically affects one eye first and then spreads to the other.

Impact on vision - Vision is often affected mildly, with some blurriness due to excessive tearing and discharge. Visual acuity may be temporarily reduced, but it generally improves as the infection resolves.

Allergic Conjunctivitis: Triggered by allergens like pollen or pet dander and causes itching, redness, and watery eyes.

Impact on vision - The main impact on vision is discomfort and itching, which may lead to rubbing the eyes.

Irritant Conjunctivitis: Caused by irritants such as smoke, chemicals, or foreign objects coming into contact with the eye.

Impact on vision - The impact of irritant conjunctivitis on vision is generally temporary and depends on the extent of exposure to the irritant.

VITAMIN A DEFICIENCY

Importance of vitamin A

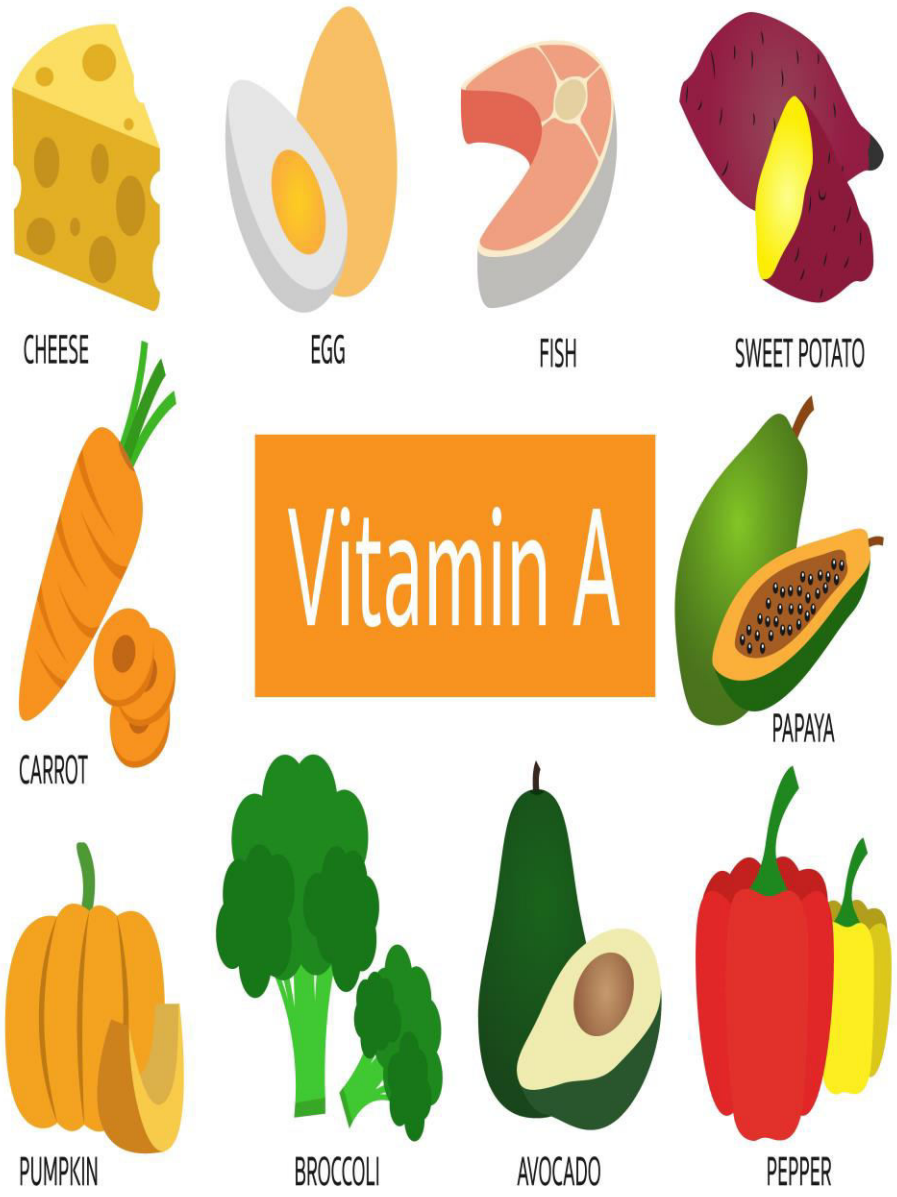
- Vitamin A deficiency is a significant health issue, it can have a profound impact on eye health.
- Vitamin A is essential for maintaining the health of various tissues, including the eyes.
- When there is a deficiency of vitamin A, it can lead to a condition known as "Vitamin A Deficiency Disorder" (VADD).

Night Blindness (Nyctalopia)

- The most common eye problem associated with vitamin A deficiency is Nyctalopia.
- Night blindness is the inability to see well in low-light or dim conditions, such as at night or in poorly lit environments.
- Vitamin A deficiency affects the production of a pigment called rhodopsin in the retina, which is crucial for night vision.

Prevention and Treatment

- **Dietary Supplementation:** Providing vitamin A supplements to children in at-risk populations can help prevent deficiency and its associated complications.
- **Dietary Diversification:** Encouraging a diet rich in vitamin A sources, such as leafy green vegetables, carrots, sweet potatoes, liver, and fortified foods, can help combat deficiency.
- **Nutrition Education:** Educating caregivers about the importance of a balanced diet can contribute to reducing the risk of vitamin A deficiency in young children.




Common eye
problems in adults

Computer Vision Syndrome (Digital Eye Strain)

With the widespread use of digital devices like computers, smartphones, and tablets, young adults are prone to developing computer vision syndrome.

CAUSES

- Staring at digital screens for extended periods without breaks.
- Poor posture and improper viewing distances.
- Reduced blinking rate, leading to dry eyes.
- Glare and reflections from screens.
- Blue light emitted by digital devices affecting sleep patterns.

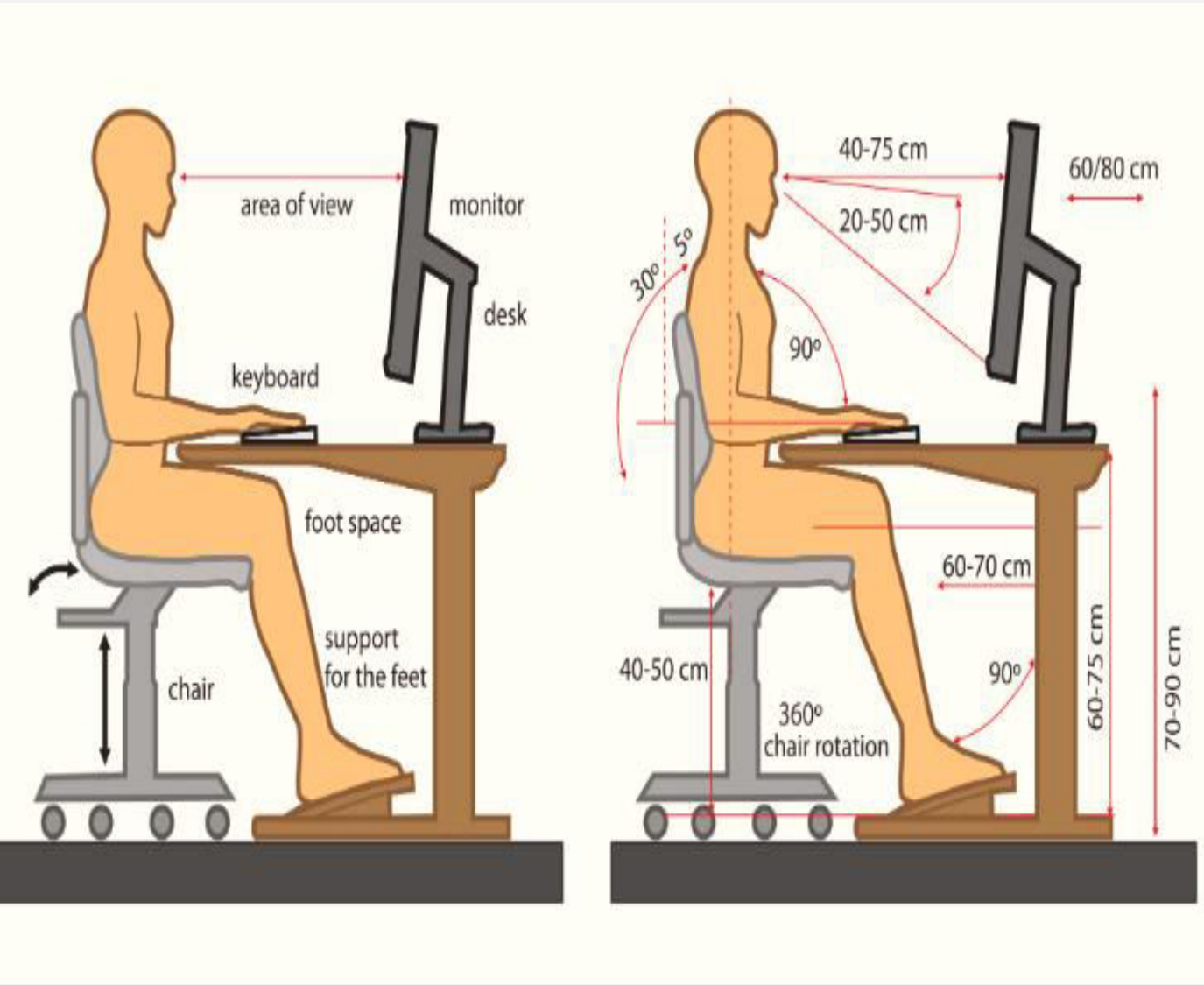
SYMPTOMS

- Eyestrain or discomfort
- Dry or irritated eyes
- Blurred or double vision
- Headaches
- Increased sensitivity to light
- Difficulty in focusing

MANAGEMENT

- Follow the 20-20-20 rule: Take a 20-second break every 20 minutes and look at something 20 feet away.
- Adjust screen brightness and contrast to reduce glare.
- Maintain proper posture and ergonomic setup.
- Use blue light filters or glasses that block harmful blue light.
- Keep your eyes lubricated with artificial tears if needed.

COMPUTER VISION SYNDROME : SOLUTION



Reducing RISK…

- Screen 15 to 20 degree below eye level
- Avoid Glare & Overhead Lightning
- Replace Light Bulbs in Desk Lamps
- Use Anti-Glare Lens/Screen
- Chair – Padded & Comfort, Adjustable Height
- Wrist should not rest on Keyboard
- 20-20-20 rule
- Try to blink to avoid dry eyes
- Modify Workstation, go for a comprehensive eye check up by Ophthalmology Doctor.

DRY EYE SYNDROME

Another common issue linked to digital eye strain is Dry Eye. Dry eye occurs when our eyes don't produce enough tears or the tears evaporate too quickly, leaving the eyes feeling dry, irritated, and uncomfortable.

CAUSES

• Extended screen time reduces our blink rate, which normally helps distribute tears across the eyes. This reduced blinking, coupled with the dry environment around screens, contributes to dry eye symptoms.

•Environmental Factors: Dry and dusty environments, as well as exposure to air conditioning or heating, can exacerbate dry eye symptoms.

SYMPTOMS

•Dry eyes can cause a stinging or burning feeling in the eyes, making them uncomfortable.

•Sensitivity to Light: Light sensitivity (photophobia) is common symptom of dry eyes.

•Foreign Body Sensation: Feeling of having something gritty or foreign in their eyes.

MANAGEMENT

•Follow the 20-20-20 Rule.

•Blink More Often: Consciously blink more frequently to spread tears over the surface of your eyes.

•Use Artificial Tears: Lubricating eye drops can provide relief and keep your eyes moisturized.

•Warm Compresses: Applying a warm, damp compress to closed eyes can help improve tear quality.


Common eye problems in older people

CATARACT

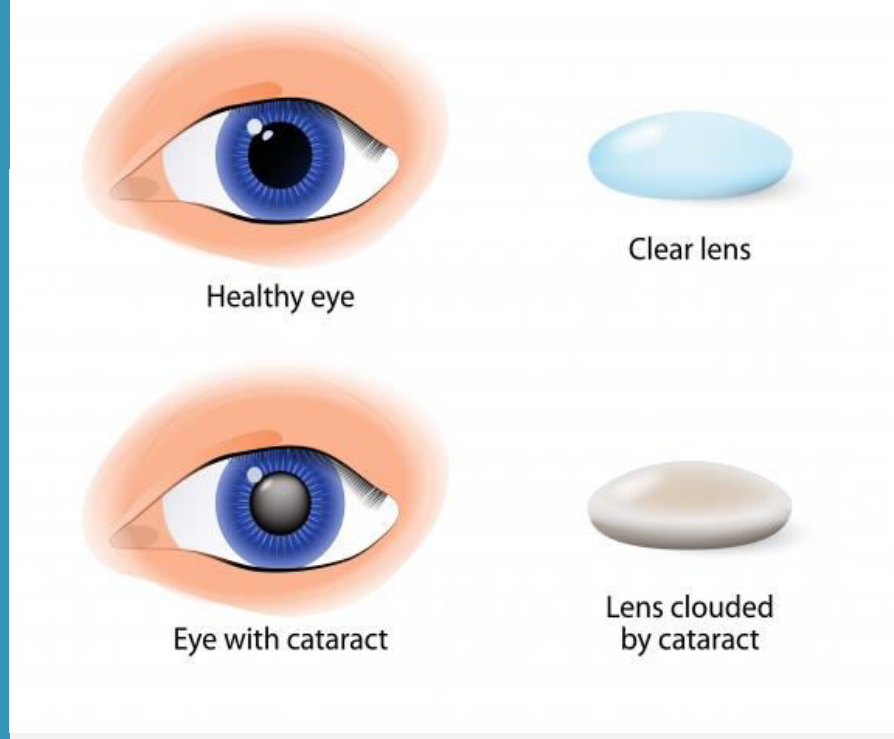
What is cataract?
- Cataract is a clouding of the eye's natural lens, leading to blurred vision.

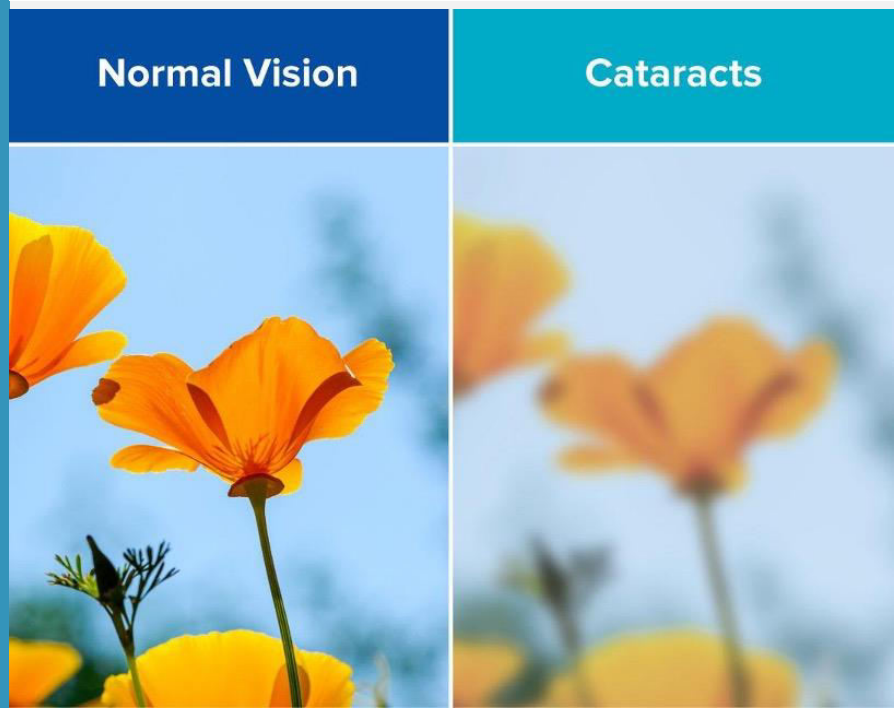
Prevalence
- Cataract is one of the leading causes of vision impairment worldwide, especially in the elderly.

Risk factors
- Aging, family history, diabetes, smoking, and prolonged UV exposure.

Symptoms
- Blurred vision, increased sensitivity to light, difficulty with night vision, and faded colors.

Treatment
- Surgical removal of the clouded lens and replacement with an artificial one (intraocular lens).





GLAUCOMA

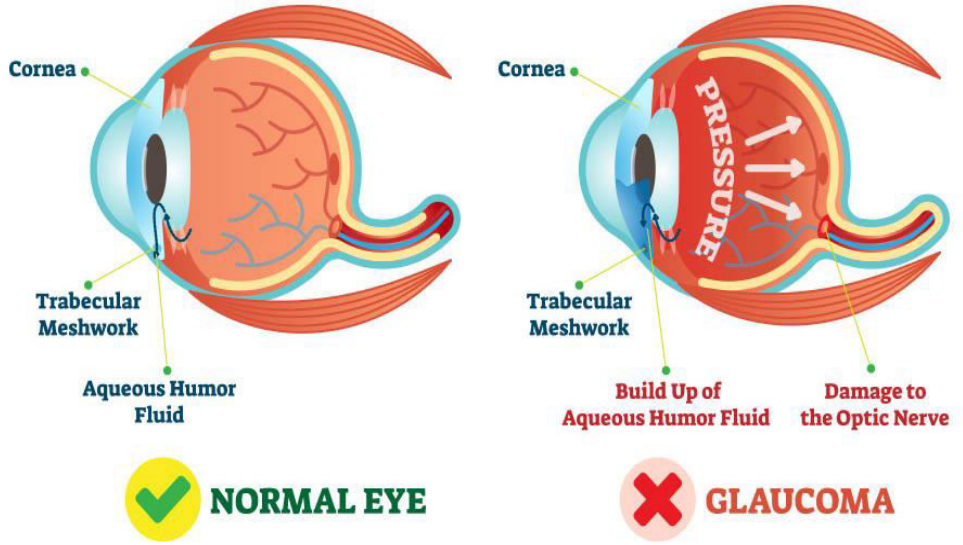
What is Glaucoma?
- Glaucoma is a group of eye diseases that damage the optic nerve, often due to increased intraocular pressure.

Prevalence
- Glaucoma is one of the leading causes of irreversible blindness worldwide.

Risk factors
- Age, family history, high intraocular pressure, and certain medical conditions.

Symptoms
- Often asymptomatic in the early stages, later signs include tunnel vision and gradual vision loss.

Treatment
- Medication (eye drops), laser therapy, or surgery to lower intraocular pressure and preserve vision.





Age-related Macular Degeneration (ARMD)

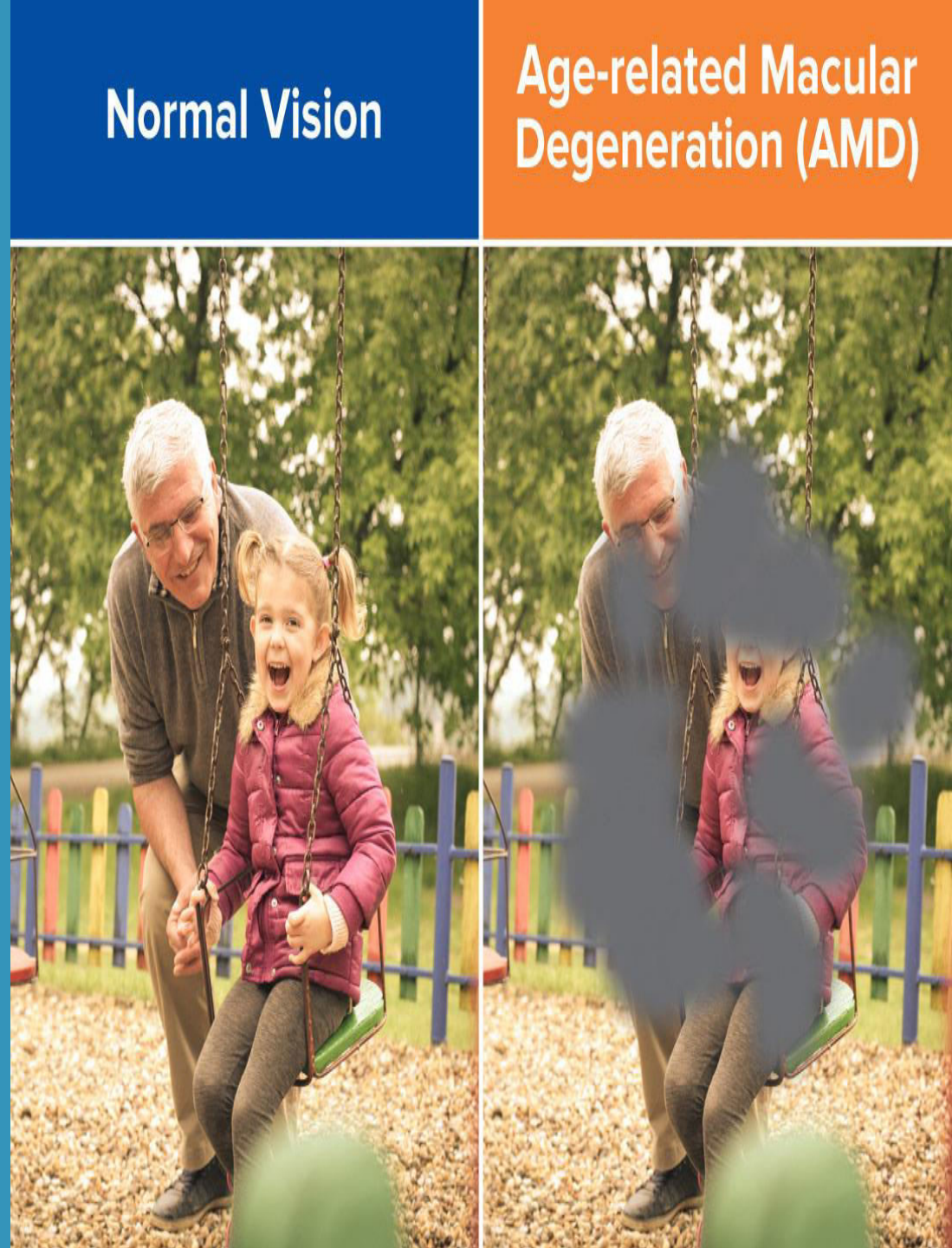
What is ARMD?
- ARMD is a degenerative disease affecting the macula, leading to central vision loss.

Prevalence
- Common in older adults and a significant cause of visual impairment.

Risk factors
- Aging, family history, smoking, and high blood pressure.

Symptoms
- Blurred or distorted central vision, difficulty reading or recognizing faces.

Treatment
- No cure, but management includes medications, laser therapy, and lifestyle changes.



DIABETIC RETINOPATHY (DR)

What is DR?
- Diabetic retinopathy is a complication of diabetes that damages blood vessels in the retina, potentially leading to vision loss.

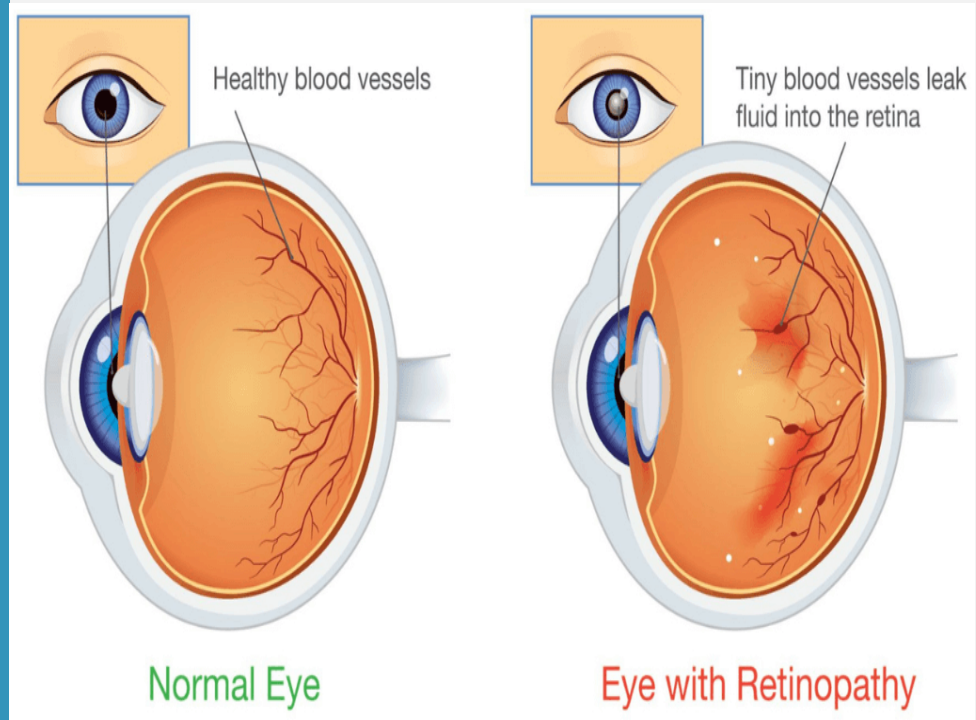
Prevalence
- Common in people with diabetes and a leading cause of blindness, estimated to be around 35% among adults with diabetes.

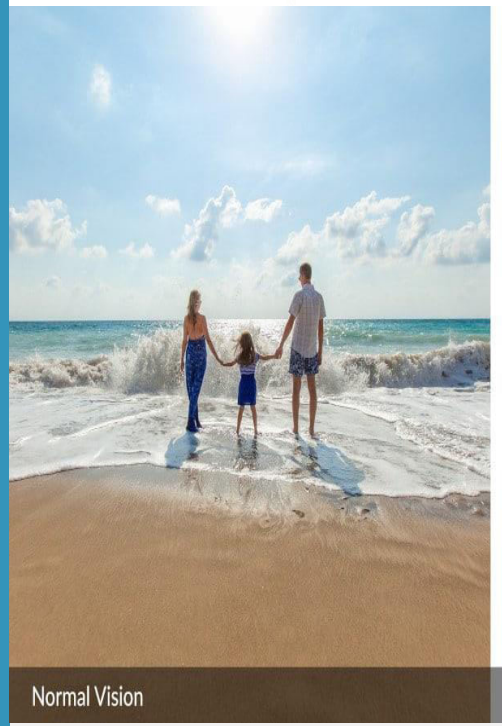
Risk factors
- Duration of diabetes, poor blood sugar control, high blood pressure, and kidney disease.

Stages
- Background DR (early stage), Proliferative DR (advanced stage with abnormal blood vessel growth).

Symptoms
- Often asymptomatic in early stages, later signs include floaters, blurred vision, and complete vision loss.

Treatment
- Early detection and management of diabetes, laser therapy, injections, and surgery in advanced cases.







Q&A



“Your eyes are the windows to your soul, treat them with care and compassion."

THANK YOU

