The AMAZING Eye and Your Sense of Sight

Have you ever thought about how your eye works? Ever wondered how many parts there are? Wondered why you are able to see different colors? Wanted to know how many different colors you can see? Why it is that you are able to tell how far away things are? Why you are able to see objects that are off to the side without turning your eyes or your head?

Just how does your eye work? And how did it come about?

Your eyes are amazing and complex structures with some estimating that there are over two million[1] parts. Here are some of them.

The Sclera – The sclera is the white, outer portion of the eye. It is a strong layer of tissue that protects the inner parts of the eye. Six muscles attach to the sclera of each eye enabling you to turn the eye in different directions.

The Choroid – The choroid is the layer of cells below the sclera. This layer contains the blood vessels that carry nutrients to the various parts of the eye.

The Retina – This is the layer of cells lining the inside of your eye. Images of things you are looking at are focused onto the retina. The cells of the retina convert the images into electrical impulses that are transmitted to the brain.

The Cornea – The cornea is the transparent tissue that forms the outer portion of the opening in the front of the eye. Light enters your eye through and is focused by the cornea. The cornea is made up of five distinct layers of tissue.[2]

The Pupil – The pupil is the dark opening in the center of the eye. Light enters the eye through the pupil. The pupil changes size in response to the amount of light available. When less light is available, the pupil gets larger allowing more light in so that you can see objects when it is darker. When more light is available, the pupil becomes smaller shutting out light that is unnecessary.

The Iris – The iris is the colored part of the eye surrounding the pupil. The iris controls the size of the pupil making it larger or smaller depending on the amount of light available.

The Lens – The lens is made up of flexible transparent tissue and is located behind the iris and pupil. Small, connected muscles, called ciliary muscles, change the shape of the lens to further focus the light onto the retina.

Rods – Rods are one of the two types of cells that make up the retina. Rods are sensitive to the amount of light available and provide vision in low-light conditions. Rods are also the cells that provide peripheral vision. It is estimated that an eye contains 120 million rods.[3]

Cones – Cones are the second of the two types of cells that make up the retina. Cones provide vision detail/sharpness and the perception of color. There are three types of cones: those that respond to red, those that respond to green, and those that respond to blue. It is estimated that an eye contains approximately 6 million cones[4] and that the eye is capable of discerning over 2.7 million colors.[5]

Optic Nerve – The optic nerve is really a bundle of over 1 million nerves.[6] These nerves carry the electrical impulses from the retina to the brain.

Vitreous – The vitreous is a jell-like substance that fills the inner portion of the eye and helps the eye hold its shape.

Yes, the eye is a very complex structure. We see colors because of cones. We have peripheral vision because of rods. We are able to focus on objects because of the way the cornea and lens function. We can see in dim or bright light because the iris changes the size of the pupil. We are able to determine distances because we have two eyes.

Adding to the complex nature of the eye are the external features. There are the eyebrows, the eyelashes, the tear ducts, the muscles that move the eye, and perhaps the most important part outside of the eye, the eyelid, which protects your eyes from objects and shuts out light when you want to sleep. These all add to the eye's ability to function.

But how did such an amazing and complicated structure come into being? How was it formed?

Evolutionists would say that the eye started as a single, light-sensitive cell that gradually changed over time. Some of the changes were beneficial. The beneficial changes played a part in the survival of the organism and were passed on. To summarize, evolutionary theory is that changes over time along with natural selection produced the eye as it exists today. It "just happened".

But does such an explanation really hold up? Which part of the eye was "added" first?

What good is a retina without an optic nerve? Why have an optic nerve if there is no retina? Why have a lens if there is no retina to focus on? Why have an iris if you don't have rods? Why have ciliary muscles if you don't have a flexible lens or any lens at all? What good is a lens or a cornea if you don't have an eye that is shaped like a ball? Why have vitreous if you don't have a ball-shaped eye to put it in? (And how do you maintain a ball-shaped eye without vitreous?) It seems unlikely that different parts of the eye developed at different times. A fully functioning eye requires all of its parts.

And other questions may arise. Why two eyes that are exactly the same? Why not one or three? Why are the eyes placed in line with each other? Why do they generally move in a coordinated way (both moving left or right or up or down at the same time)? And how did tears come about? (One of the more recent discoveries about the eye is that are three distinct types of tears: basal, reflex, and emotional (or psychic) tears, each having their own distinct chemical makeup.[7] [8] Further, each type of tear has three distinct layers, each produced from a different source.[9] What could account for the development of these characteristics?)

You can probably tell why various parts of the eye are important, but can you tell why they came into existence? In which order did they arise? How did unthinking forces bring about such a complex structure? Is the eye really something that "just happened"?

The truth about the evolution of the eye must be that it didn't evolve at all; it was designed by a designer and the eye and all the external features were formed all at once.

There is a God that created an eye that can see in varying amounts of light; an eye that can see clearly; an eye that has features to protect it; and eyes that work in pairs providing depth perception. God created an eye that meets our needs.

But, in creating the eye, God did more than meet our needs. The functioning of the eye also points to His goodness. Think of a world without color; a world in black and white. Due to the goodness of God, we see a world of color. While it may be necessary at times to identify the color of an object (things good to eat versus things not good to eat), colors clearly make the world a more enjoyable place. Consider the colors of a sunrise or sunset or the colors of flowers and various animals. God has shown His goodness by designing an eye that meets our needs and adds to our enjoyment of life.

The eye is amazing. It didn't just happen. God did it!

If you would like to know more about why you can know there is a creator, visit www.AmazingByDesign.net. (.net NOT .com)

The God that created the eye wants to have a personal relationship with you. If you would like to know more about how you can have a personal relationship with the creator, visit www.AmazingByDesign.net. (.net NOT .com)

Endnotes:

1 – "About Eyes." *All About The Eye, Anatomy Of The Eye and How The Eye Works*, www.eyeinstitute.co.nz/about-eyes.

2 - Lhg-Admin, "How the Human Eye Works: Cornea Layers/Role: Light Rays." *NKCF.org*, NKCF.org, 26 Mar. 2019, www.nkcf.org/about-keratoconus/how-the-human-eye-works/.

3 - "Rods." *American Academy of Ophthalmology*, 19 Dec. 2018, www.aao.org/eye-health/anatomy/rods

4 - "Cones." *American Academy of Ophthalmology*, 19 Dec. 2018, www.aao.org/eye-health/anatomy/cones.

5 – "About Eyes." *All About The Eye, Anatomy Of The Eye and How The Eye Works*, www.eyeinstitute.co.nz/about-eyes.

6 – "Anatomy of the Eye." *Anatomy of the Eye | Kellogg Eye Center | Michigan Medicine*, www.umkelloggeye.org/conditions-treatments/anatomy-eye.

7 – "Facts About Tears." *American Academy of Ophthalmology*, 26 Mar. 2018, www.aao.org/eye-health/tips-prevention/facts-about-tears.

8 – D A Dartt and M D P Willcox, "Complexity of the Tear Film: Importance in Homeostasis and Dysfunction during Disease." *Experimental Eye Research*, U.S. National Library of Medicine, Dec. 2013, www.ncbi.nlm.nih.gov/pmc/articles/PMC4225770/.

9 – "The Three Layers That Make Up the Tear Film." *Cataract & Refractive Institute of Florida*, www.floridacataract.com/the-three-layers-that-make-up-the-tear-film.html.