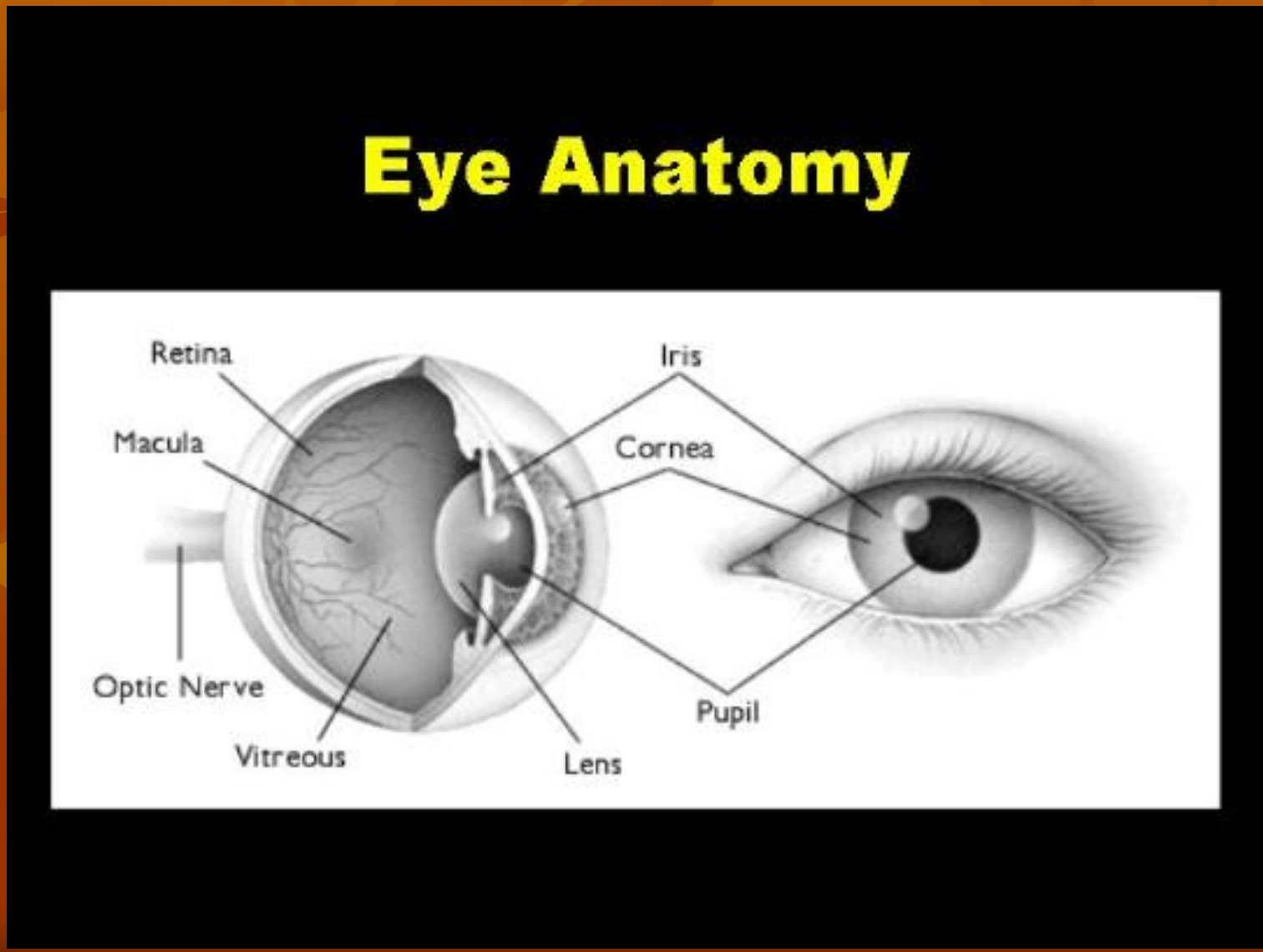
Fuchs' Corneal Dystrophy

Also known as Fuchs' "Endothelial" Dystrophy

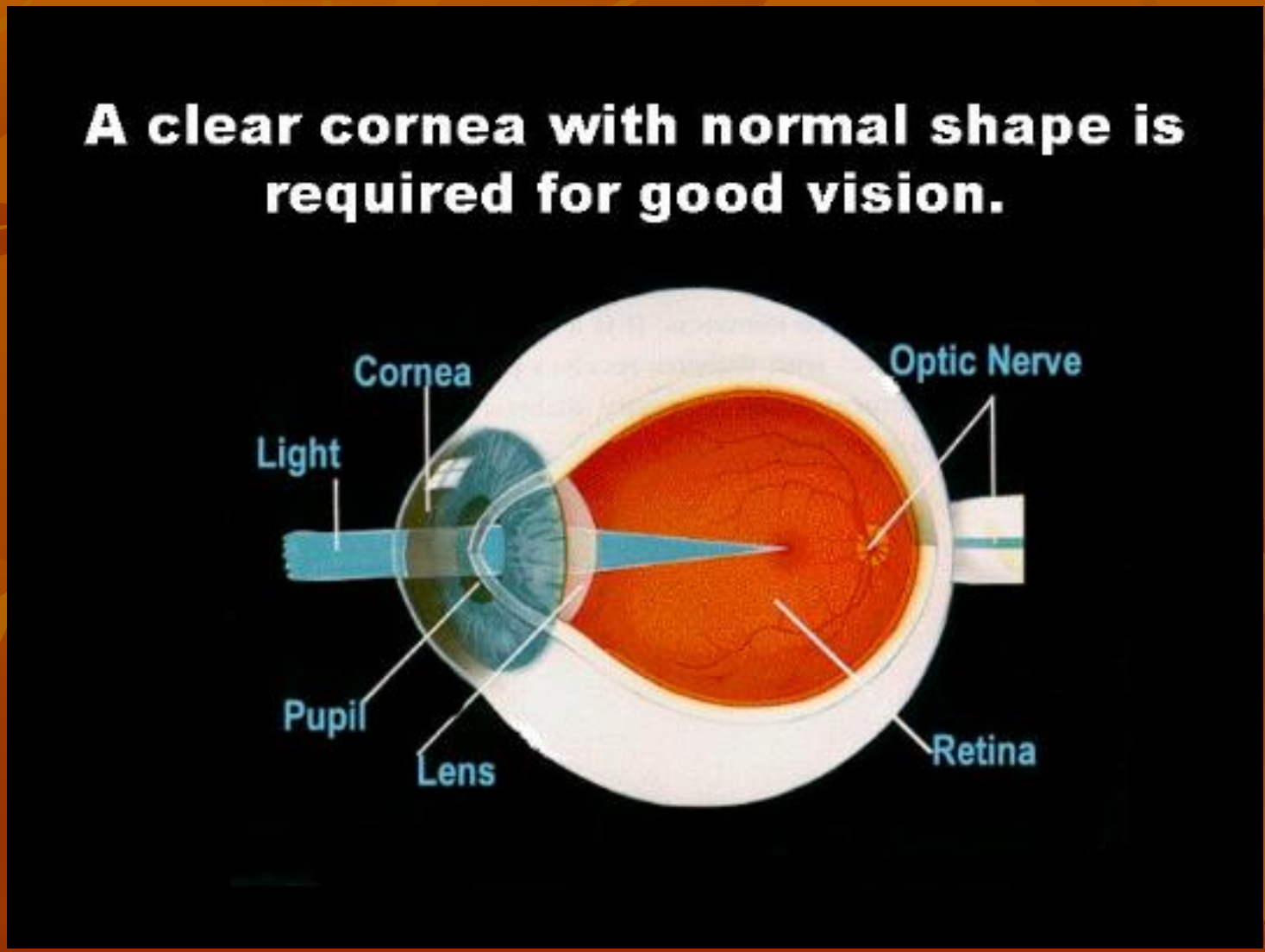
What is Fuchs' Corneal Dystrophy?

- A corneal dystrophy is a condition in which one or more parts of the cornea lose their normal clarity due to a buildup of cloudy material.
- Fuchs' endothelial dystrophy is a disorder of corneal degeneration in which edema (swelling) and gradual vision decrease are characteristic.
- Most cases are of dominant inheritance, which implies that both eyes are affected and the disorder may affect blood relatives.
- The underlying defect is an abnormal deep layer of the cornea, known as the endothelium, which is situated on the "back" side of the cornea and must be of sufficient number in order to maintain a relatively dehydrated and clear cornea (with consequent good vision).
- This layer of cells is more rapidly lost by attrition than normal, and the consequence is swelling of the cornea and gradual vision loss.
- As the disorder progresses, swelling of the cornea causes "blisters" on the front of the cornea known as epithelial bullae. This latter condition is known as bullous keratopathy.

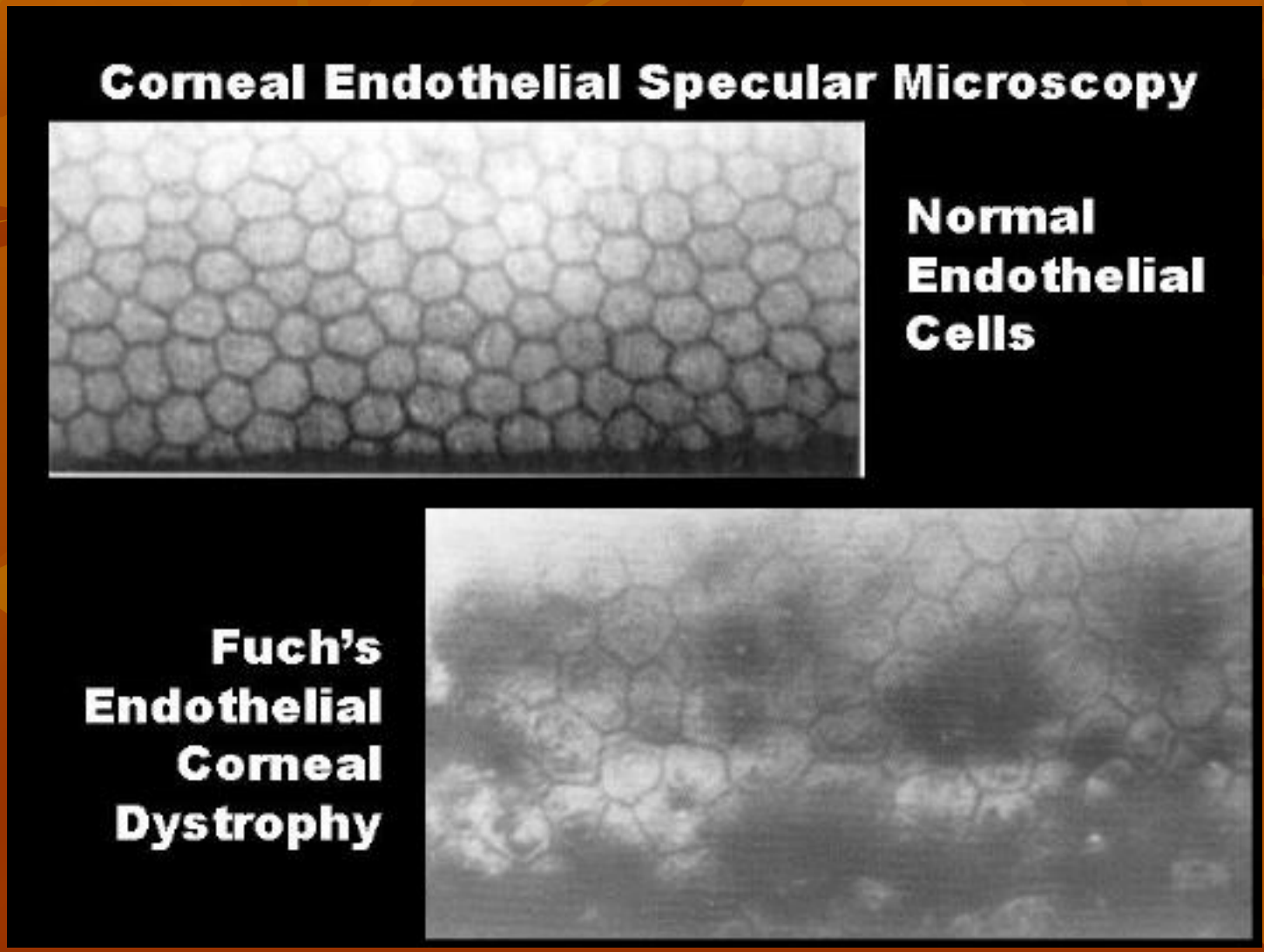
Anatomy of the Eye



The Cornea


A clear cornea with normal shape is required for good vision.
Cornea
Optic Nerve
Light
Pupil
Lens
Retina

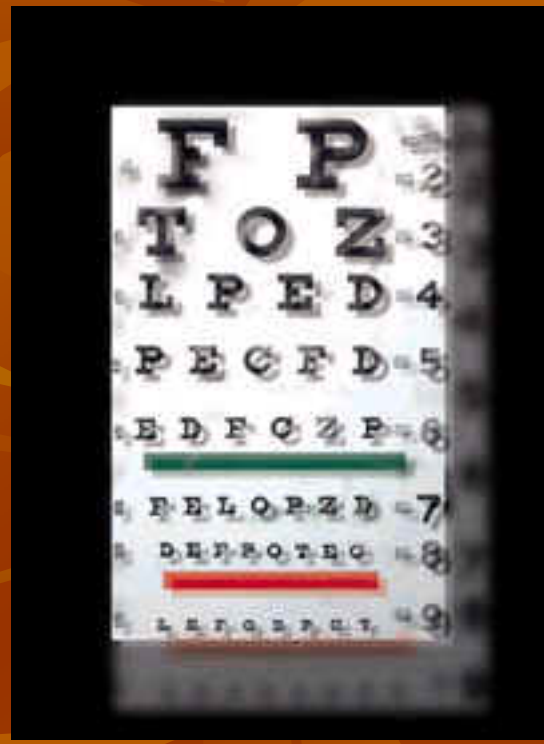
Endothelial Cells



What A Person With Fuchs Sees…

Abnormal Normal

Cornea disease can cause severe vision problems.

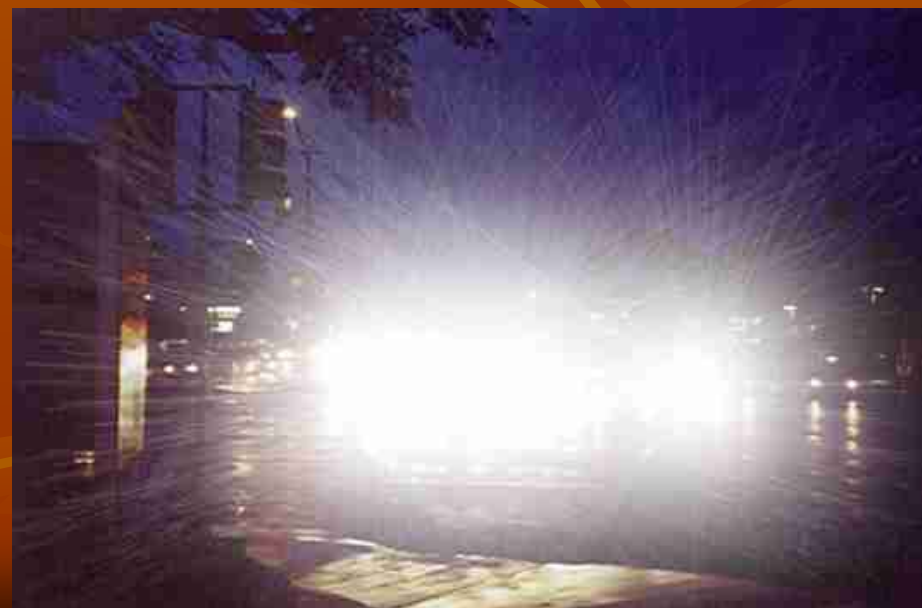


Normal

Fuchs

Fuchs

Fuchs



Normal Top/Fuchs Bottom

Fuchs

Fuchs

Fuchs

Fuchs

Fuchs

Fuchs

Normal

Fuchs

Fuchs

The effects of light…

… in front of a person or object.

… behind a person or object.