# Summary

The cornea is the transparent , dome-shaped layer covering the anterior part of the eye through which it gives us a clear window to look through.

The adult cornea is a half millimeter in thickness and it has a very powerful refracting surface representing 2/3 of the total eye's refracting power .

Anatomically , the cornea is divided into 5 layers which are arranged respectively as follows: Epithelium , Bowman's membrane , Stroma , Descmet's membrane and finally Endothelium .

The corneal hysteresis is considered an indicator of the visco-elastic properties of the cornea which means the ability of the corneal tissue to absorb and recede energy applied on it.

The corneal strength and flexibility degree differs from one person to another , so , the corneas which they possess a lower flexibility degree are more liable to a lot of diseases and complications . The central part of the cornea is the indirect unit of measurement to measure its flexibility and strength. It has been found that there are many corneal biomechanical properties which affect on the strength and flexibility of the cornea.

The Ocular Response Analyzer measures those properties through measurement of the ability of the tissue to absorb the pressure applied on it. As it was found that the glaucomatous patient has a corneal flexibility and strength degree lower than the normal person so , the determination of those degree makes the diagnosis of glaucoma easier .

Practically , the intraocular pressure is measured through the Goldmann Applanation Tonometry which has been found that it is not very accurate in IOP readings and has many disadvantage ; as it touches the cornea so it may transmits any disease from a patient to another and also it may injures the cornea . Also , its use is difficult if it is used by anyone except the specialist .

So, the Ocular Response Analyzer is easier in use by anyone not only the specialist, it gives an accurate reading closely equal to the real intraocular pressure without any external effects such as the corneal biomechanical properties and finally it is useful in the diagnosis and follow-up of Glaucoma.