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ENGL 21007-B ENGL 21007-B Contact lenses are a revolutionary device that allows anyone to take off their glasses and achieve 20/20 vision without any surgical procedure. Due to growth in innovation and technology, this small device has become an alternative solution to eyeglasses.

A contact lens is simply defined by Merriam Webster Dictionary as "a thin lens designed to fit over the cornea and usually worn to correct defects in vision." Contacts are considered medical devices that cannot only be used not only to correct vision but are also commonly used for cosmetic or therapeutic reasons.

The most common types of contact lenses are: soft and hard lenses. The main difference between the two is the plastics they are made up of. Hard contact lenses are a rigid gaspermeable lens. These lenses usually consist of plastic combined with other materials. They provide sharper vision than soft lenses when the cornea is unevenly curved. (A. 2018). Soft contact lenses are the more comfortable options made from gel-like, water-containing plastics called hydrogels. (Segre, 2018) Some lenses available under the category of soft contact lenses are: daily wear, extended wear, toric, colored (tinted) and decorative (cosmetic) contacts. (A. 2018) Every contact lense should sit in a smooth, concave shape that resembles a cup so it can function properly. Contact lenses do not all come in one size, with each lens having a specific base curve and diameter. (When it comes to contacts, does one size fit all?)





("How can I tell" my contact lens is inside out?)

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Note that I shortened the citation. See also my comment in the list of references.

The function of contact lenses is similar to the function of glasses. By adding or subtracting wave front curvature, the contact adjusts to where the focus of light entering the eye is. (Corrective lens, 2018) Glasses and contact lenses are designed to adjust to any surrounding objects visible to the eye. Upon eye contact the focal point of light lines up with the retina. The main difference between the two optic devices, are that the face of the contact lens curves outwards rather than inward like traditional glasses. The curved shape adapts to the human eye so that the lens can rest comfortably without any problem.

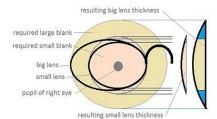
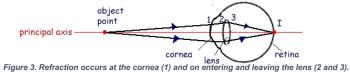


Figure 2. The main differences between eye glasses lenses and contact lenses.

(Corrective lens, 2018)

The physical laws of optics are the main concept behind the functionality of a contact lens. Contact lenses work by refracting light as it enters your eye on a principal axis. The central part of the lens doesn't have an even thickness. Much like glasses lenses, this optic zone's uneven thickness refracts the light waves in a way that corrects focus on the layer of retinal sensors at the back of your eye.



(Medical Option - the EYE)

The lens and cornea contribute to refract light to be focused on the retina. The lens, by changing shape, functions to change the focal distance of the eye so that it can focus on objects at various distances, thus allowing a sharp real image of the object of interest to be formed on the retina. (Lens (anatomy), 2019)

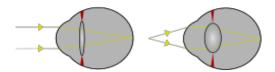


Figure 4. Lightfrom a single point of a distant object and lightfrom a single point of a near object being brought to a focus by changing the curvature of the lens.

(Lens (anatomy), 2019)

Today, producing viable contact lenses is a key effort amongst various brands. Choosing a specific brand is something that should be taken seriously. Acuvue is a brand that claims to create contact lenses that work in harmony with your unique eyes, the lifestyle you live, and your vision correction needs. (Why ACUVUE®?) As stated in Acuvue's claim, it becomes very important for a manufacturer to produce a lens that are functional and fit for any of their consumer's needs. Who would have known that a microscopic piece of plastic would impact the world of optics for good.

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This is an excellent first draft, Gabriella. Well done. See my comments above. I look forward to reading your final draft.

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