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Scleral Lenses and You!

Overview

Scleral lenses are a type of rigid gas permeable (RGP) lens that are larger in diameter, completely cover, or vault, over the cornea, and further extend over to the sclera (the white part of the eye). Because these



lenses are larger in diameter, they tend to be more comfortable than your average corneal lens. This is due to the fact that they rest on the sclera which has fewer pain receptors than the cornea. There are several patient populations that can benefit from the use of scleral lenses, such as those with irregular corneas, ocular surface diseases (e.g. Graft vs. Host Disease (GVHD), chronic dry eye syndrome, Sjogren's syndrome) and patients who have had corneal surgery. Because the cornea is no longer smooth due to these conditions, these lenses help to cover any anomalies, as well as provide improved vision. Many patients may ask, "Why have I never heard of these lenses before?", and most would be surprised to know that they have been a part of medical literature since the late 1800s. Of course, times have

changed, and the proper materials and resources are now available for these lenses to be reliably produced.

Success

There are three factors which contribute to the success of scleral lenses:

1. The ability to retain a "precorneal tear reservoir" under the lens

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2. The protection that is provided for the ocular surface from inside the eyelids, lashes, and outside environment
3. The furnishing of a smooth refracting surface

These factors combined maintain ocular surface hydration, promote ocular surface healing and maintenance, and improve vision and ocular comfort. These lenses have great potential to improve chronic, difficult to treat ocular surface conditions or diseases. As previously stated, many patients ask, “Why have I never heard of these lenses?” Besides advances that needed to be made in manufacturing, they are likely undermined due to the ophthalmic community’s lack of comfort with the fitting process and their utility.

Clinical Conditions

Scleral lenses can be used for a plethora of clinical conditions:

- Keratoconus
- Post-refractive surgery ectasia
- Dry eyes
- Severe atopic eye disease

What’s next?

If you feel that the use of scleral lenses may be advantageous to your vision or overall ocular health, consult with your physician to see if you are an optimal candidate.

Frequently Asked Questions

1. Do scleral lenses hurt?
 - Though they may take some time to get used to, they do not hurt! From our staff’s personal training and experiences, we can say that these are probably some of the most comfortable lenses we have ever worn!
2. Can I sleep in my scleral lenses?
 - We do not recommend that you sleep in your scleral lenses. Because tear production stop at night, this could lead to a higher risk of eye infection

3. Can I wear my scleral lenses all day?
 - Most patients will start off wearing them for a few hours a day, and add on an hour or two per day as they progress in their journey, but ultimately many patients with sclerals wear them most of their waking hours! There may be times throughout the day where your vision may seem a little blurry or you may experience some slight discomfort. In cases like these, you can remove the lenses and simply reapply fresh saline to help you achieve the best possible vision and comfort. Dr. Ellison will let you know if you need to limit your wearing hours, due to a specific eye condition.
4. Will my vision be corrected to where I will not require glasses while wearing my scleral lenses?
 - That is always our goal. Overall, scleral lenses can help you to achieve better vision than some other forms of correction. It is still possible that you may need to wear glasses to help you with things like being in front of the computer or reading, especially if you are over the age of 40.
5. Can scleral lenses help with my dry eyes?
 - Yes! While they may not replace other things that you are already doing to manage your ocular surface condition, they are a fantastic contribution to your already existing therapy regimen. Scleral lenses promote corneal protection, so because the back of your eyelid rubs over the surface of the lens, you may need additional lubrication to reduce any irritation this could potentially cause.
6. How long will my scleral lenses last?
 - Because these lenses are , just about as long as other types of rigid gas permeable lenses.