What to Expect from Filtered Contact Lenses for Achromatopsia

Elimination of the Debilitating Inside Glare: Contact lenses are far more effective in controlling light and glare than tinted eyewear. With tinted eyewear, the vision still fluctuates, as light intermittently leaks around the edges of the eyewear. The contact lenses are fit directly on the eye to fully prevent light from entering and overwhelming the visual system.

More Consistent Vision: The effect, with the proper filtered contact lenses, is a far more efficient and consistent control of light. Vision is much more consistent under varying levels of inside lighting. The constant ups and downs of vision are smoothed out.

Better Functional Visual Field and Travel Vision: When the proper filtered contact lenses are prescribed, the need to squint the eyes is dramatically reduced. This squinting can reduce the visual field to the point of limiting safe travel or making it difficult to search for things such as looking for items in a bright store. With the contacts, a consistently wider visual field is possible. Individuals may also be more confident in traveling.

Better cosmetic appearance: The cosmetic benefits are also significant. The constant squinting and the wearing of dark tinted eyewear have a tremendous impact on those with achromatopsia.
This is especially crucial in children who are often the subject of teasing and bullying. From about age eight children can often be fit with soft contact lenses but those under age ten may initially require help from parents in the daily insertion and removal of the lenses. The contacts should always be fit to consider not just the visual benefits but also cosmetics. Patients do not need to wear red contact lenses to gain the benefits. For that reason, we often use brown lenses rather than red or use the darker NARZ contact lens that do not appear red on the eye.

**The Social and Psychological Impact:** Removing the dark glasses worn inside, the constant squinting and improving the consistency of vision can have a dramatic impact on a person’s confidence and self image.

**Bright Sunlight Requires Sunglasses:** Filtered contact lenses allows the achromatopsia patient to gain control of inside light, but the same contact lenses cannot provide full sun protection outside. With filtered contact lenses, the outside glare will be easier to control with regular sunglasses just as all individuals should use sunglasses outside. If contact lenses were fit so dark to fully control outside glare, they would be too dark to be worn inside.

**Night Vision:** Filtered contact lenses may be too dark in outside activities at night. The contact can be removed and clear contact lenses or eyewear worn outside at night.

**Changing Environmental Lighting:** Once an achromat is fit with filtered contact lenses, the lighting at home or work may need to be adjusted slightly higher. What was good without the filtered contacts may now be too dark.

**Color Vision:** Filtered contact lenses can sometimes enhance certain colors in incomplete forms of achromatopsia. These are forms were some color vision still exists. This depends on the type of filter
used. This is sometimes a secondary benefit, but is not possible in many cases.

**Reading Vision:** Control of the light with contact lenses can improve reading. The achromat must still hold reading materials close to gain angular magnification. Contact lenses will not eliminate the close working distance for reading. Achromats may need to add light to read while in the past they may have preferred to read in the very low light levels. High powered reading glasses or microscopic eyewear may still be needed for reading.

**Contact Lens Handling:** Most patients quickly learn to insert and remove their contact lenses. Young children may initially require help from the parents on insertion and removal. It is important to follow the rules on cleaning and caring for the contact lenses. Do not overwear your contact lenses. Replace your case and the catalyst in the bottom of the case periodically. Change your case every three months.

**Contact Lens Comfort:** Contact lenses should be comfortable. If you experience significant inflammation or discomfort while wearing your contacts, contact our office or seek local eye care. If you experience burning on insertion, please change the metallic catalyst in the bottom of your case.

**Contact Lens Replacements:** Yearly replacement of the lenses is advised.
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