

# Shades of Relief: Tinted Prosthetic Contact Lenses in Post-Stroke Visual Rehabilitation

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## BACKGROUND

A patent foramen ovale (PFO) is a congenital heart defect of the atrial septum and a remnant of the fetal vasculature (1). It is present in 20-25% of the population and has been associated with cryptogenic stroke, or ischemic stroke of unknown or obscure origin, particularly in patients younger than 55 years old (2,3). Visual problems after stroke result in reduced quality of life due to loss of independence in performing activities of daily living (ADLs) and depression, especially in younger patients (4).

### Common Visual Complaints After Stroke (5,6)

- Photophobia
- Glare
- Visual field loss
- Reading difficulties
- Blurred vision
- Visual snow

## CASE REPORT

A 35-year-old Black female presented for a prosthetic contact lens evaluation having had a stroke one month prior secondary to a PFO. The patient was previously diagnosed with visual snow syndrome and described her vision as a “kaleidoscope” and like “looking through a VHS tape”. Her work as a graphic designer, along with her activities of daily living (ADLs), were greatly impacted by glare symptoms. Her best corrected visual acuity was 20/20 OD and OS in her habitual standard soft contact lenses. Entrance testing revealed a left superior homonymous quadrantanopia confirmed with kinetic visual field. Ocular health was otherwise normal. She was referred to the vision rehabilitation clinic for a tint evaluation, where she appreciated a reduction in symptoms with an Eschenbach #18 Gray tint (58% light transmittance; blocks 400nm light). The preferred tint color was replicated, with the assistance of the manufacturing laboratory. After three months of successful wear, the patient reported an improvement in glare symptoms and a reduced impact of glare on her ADLs as the lenses immediately “relax her brain”.

FIGURE 1  
Preferred Eschenbach Tint

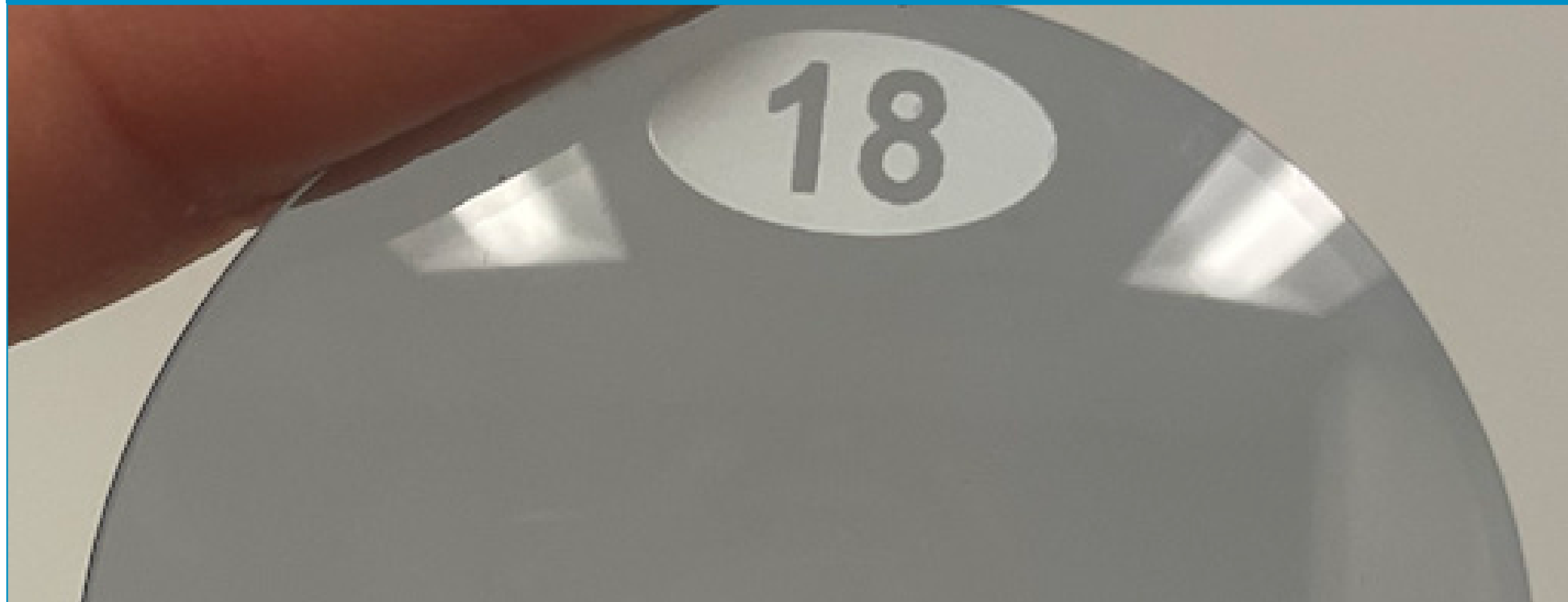


FIGURE 2  
Lenses



FIGURE 3  
Without Lenses



FIGURE 4  
With Lenses



TABLE 1  
Contact Lens Parameters

	Tint	Zone	Power	Material	Replacement
OU	70% Sun Tac	11.5 mm (HVID 11.4 mm)	-6.00 D	Methafilcon 55%	Annual

## CONCLUSION

For patients with visual symptoms post-stroke, tinted soft prosthetic contact lenses offer an alternative to standard lenses and other common non-optical devices. They may improve self-esteem and provide the comfort of routine for previous contact lens wearers during a time of transition (7). Tinted prosthetic soft contact lenses should be considered for all patients with symptoms of glare and/or photophobia after stroke. Severely symptomatic patients may not benefit fully from these contact lenses and additional management will likely be necessary, such as fitovers to increase darkening or neuro-optometric rehab.

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