

**The Optometric Trends Discovery Group's
2023 Report on**

**Thyroid Eye
Disease:
INSIGHTS &
TRENDS**

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Thyroid eye disease (TED) is an autoimmune condition causing inflammation and other symptoms around the eyes, leading to issues like proptosis and double vision. Optometrists play a crucial role in its early diagnosis, managing symptoms like dry eyes, and referring more advanced cases to specialists for comprehensive treatment or surgical intervention.

We'll review data from the 2023 Optometric Trends Discovery Group (OTDG) Survey to gain insights into the clinical practice patterns and opinions of US optometrists as they relate to TED.

Diagnosing TED

On average, respondents believe that 4.5% of their patients have TED. This low prevalence squares pretty well with the data which reports a similarly low prevalence. Encouragingly, most respondents (59%) are confident in their ability to diagnose and treat patients with TED, though that still leaves 41% that lack confidence.

The survey asked respondents what signs and symptoms they use to diagnose TED. As shown in Figure 1, proptosis was the most commonly cited symptom (85%), though there wasn't any clear consensus, and all but optic neuropathy was selected by over 60% of respondents. The prominence of proptosis can be seen as

reflective of the disease's underlying etiology. The inflammation characteristic of TED, coupled with the build-up of inflammatory substances around the eye, results in the eye being thrust forward. This anterior displacement of the eye disrupts the natural blink and protective functions of the eyelids, paving the way for the emergence of dry eyes. Beyond this, the combined impact of proptosis and inflammation can give rise to double vision. Additionally, individuals with TED might experience eye pain and pressure. Persistent pressure around the eye, if not addressed, might place undue stress on the optic nerve, potentially leading to optic neuropathy.

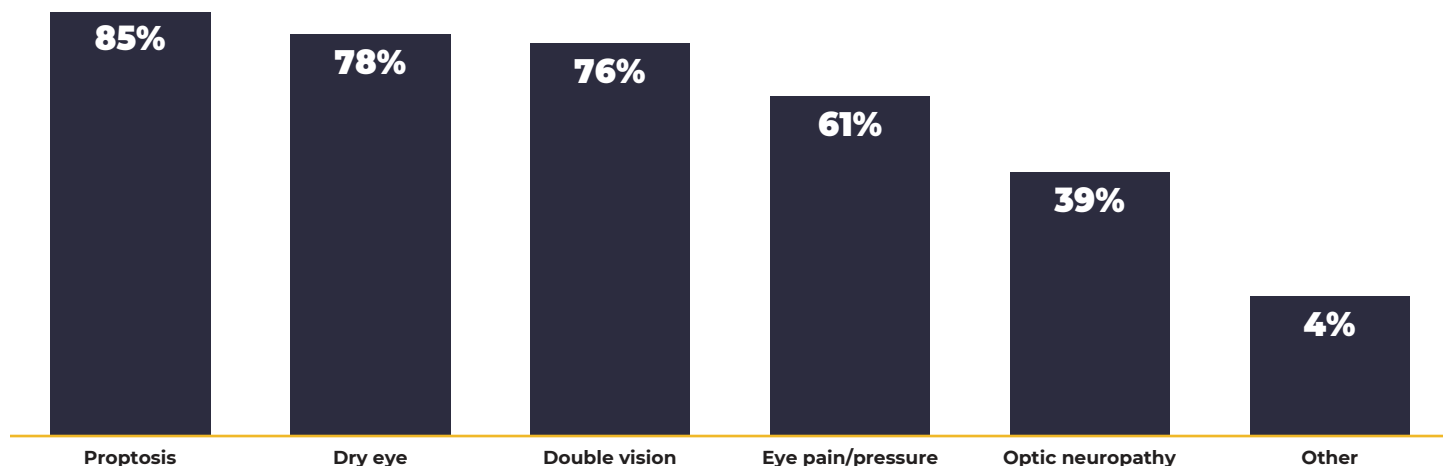


FIGURE 1. What signs and symptoms do you use to diagnose TED? (Select all that apply)

Treating TED

While diagnostic signs for TED vary, there's a shared belief that orbital decompression surgery is the primary treatment, as depicted in Figure 2. From my experience, this approach effectively eases TED's strain. Strabismus surgery, when needed for persistent and stable muscle deviations, and infusions like teprotumumab, steroids, and rituximab, were favored by 24-38% of those surveyed.

Emerging treatments for TED, such as teprotumumab-trbw, underscore the need for optometrists to stay up to date. Many may be unaware that teprotumumab-trbw requires eight infusions given once every three weeks, meaning that the full course of treatment will take about 5 months. Patients' reactions to the treatment can be diverse; some find relief without even finishing the course of treatment, while others

find it intolerable. It's an expensive treatment option and requires prior authorization, but only 15% of participants felt confident in securing prior approval for teprotumumab-trbw infusions for TED treatment.

Infusions are conducted in specific medical facilities, and not typically private optometry practices. However, even though surgeries and even infusions largely fall outside optometrists' domain, our role remains crucial, especially in handling prevalent dry eye symptoms in TED patients. We are equipped to offer procedures and prescribe topical drugs akin to regular dry eye care, but partnership with an ophthalmologist becomes paramount as the condition progresses, potentially requiring surgical intervention.

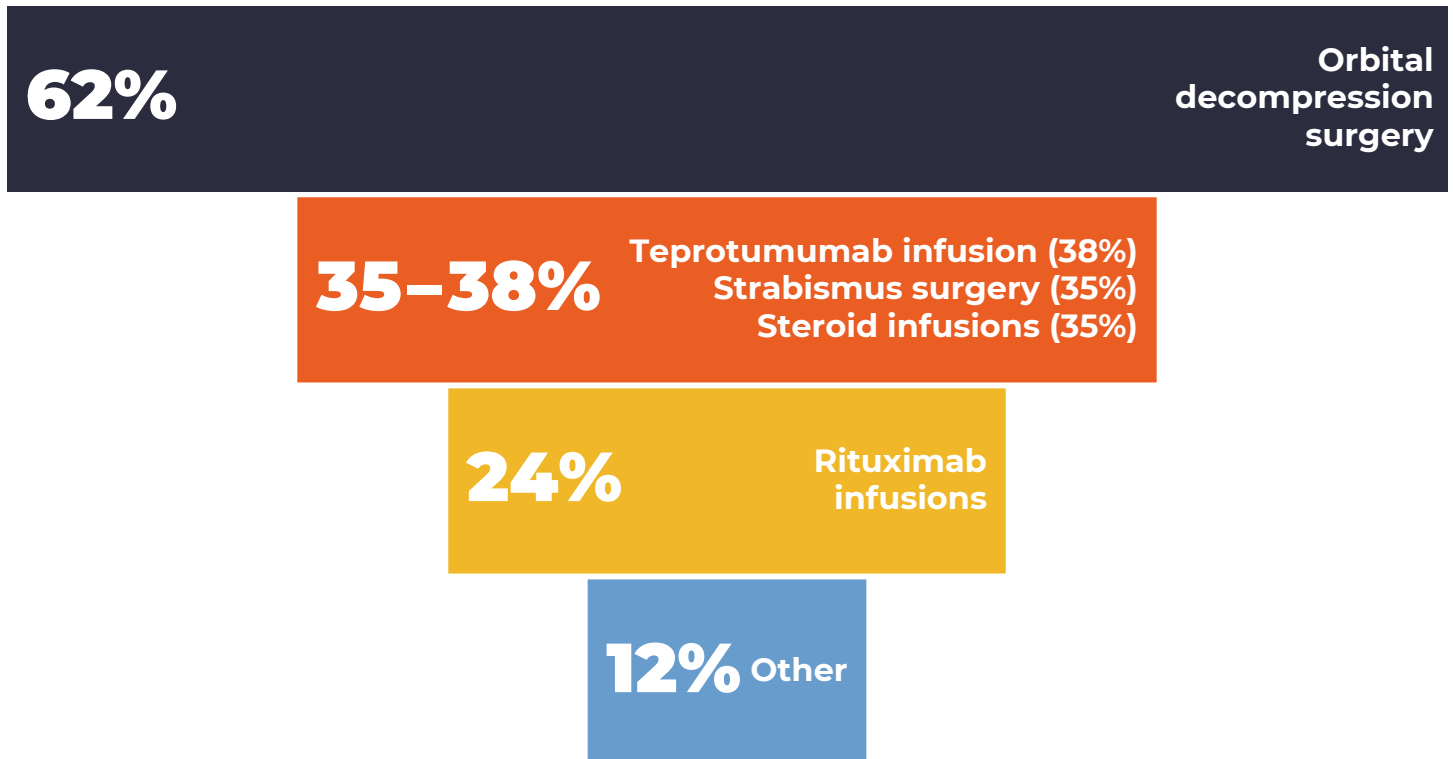


FIGURE 2. What therapies and treatments do you recommend for thyroid eye disease? (Select all that apply)

“Conducting imaging to prevent lasting eye damage and addressing symptoms like pain and double vision is crucial, as these can drastically diminish a patient’s quality of life.”

Referring Out TED patients

Because of the requirement that surgery or infusions be conducted by specialists, much of the treatment of TED is done outside the optometrist’s office. Therefore, collaboration among optometrists, ophthalmologists, and endocrinologists is crucial.

Respondents were asked what criteria respondents use to refer out TED patients to specialists. Mirroring signs used to diagnose TED, evidence of proptosis (69%) and new onset of double vision (67%) were the most common

criteria used to refer a patient to a specialist, as shown in Figure 3. Another major concern that triggers referral, and one I wholeheartedly concur with, is when dry eye remedies fail to benefit the patient or when new symptoms arise. If a condition exceeds an optometrist’s comfort in management, particularly in cases of proptosis, immediate referral is necessary. Conducting imaging to prevent lasting eye damage and addressing symptoms like pain and double vision is crucial, as these can drastically diminish a patient’s quality of life.

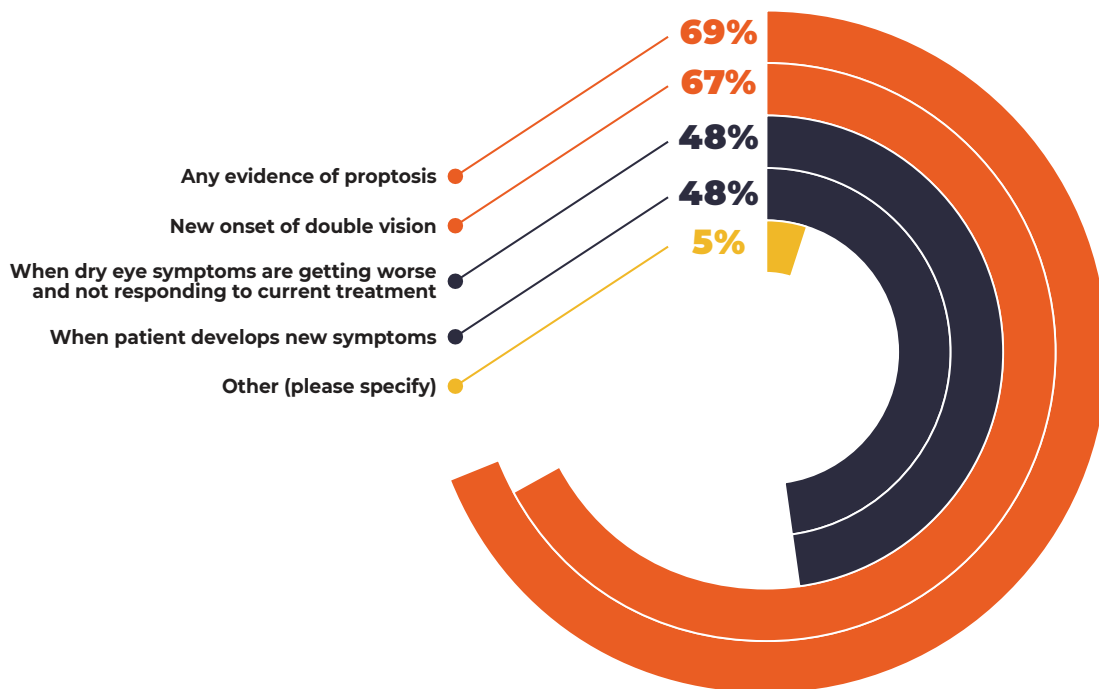


FIGURE 3. What criteria do you use to refer out TED patients to ophthalmologist, oculoplastic, or neuro-ophthalmologist specialists? (Select all that apply)

Did you KNOW?



4.5%

of respondent's patients are believed to have thyroid eye disease



59%

of respondents are confident in their ability to diagnose and treat patients with thyroid eye disease



15%

are confident in getting prior authorization for teprotumumab infusions for the treatment of thyroid eye disease. None were very confident.

The Optometric Trends Discovery Group

(OTDG) Survey was launched on February 4, 2023. The survey included 141 questions developed and reviewed with the OTDG leadership board. The survey questions explored doctors' understanding and current practice patterns across a number of areas of optometric care, including presbyopia, astigmatism, corneal therapeutics, ocular surface disease, glaucoma, lid management, corneal refractive surgery, dry AMD and geographic atrophy, and myopia management.



Nearly 300 optometrists responded to the survey which was closed in mid-March 2023. You can access interpretive reports on additional OTDG topics as they are released by visiting otdg.tfgeducation.com or scanning the QR code.



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Meet the Author

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Dr. Gloria Chiu is an Associate Professor of Clinical Ophthalmology at the USC Roski Eye Institute, Department of Ophthalmology, at the University of Southern California Keck School of Medicine. She received her Doctor of Optometry at the University of California, Berkeley, School of Optometry and completed a residency in Cornea and Contact Lenses at the Southern California College of Optometry, where she still serves as an adjunct faculty member.

Her clinical interests include contact lens fittings and treatment for patients with ocular surface disease and irregular corneas. Her research interests include microbial contamination in contact lens-related solutions and effects of scleral lens wear on the ocular surface and optic nerve.

She is a fellow of the American Academy of Optometry and the Scleral Lens Education Society, and a member of the California Optometric Association. She is a regular contributor to *Contact Lenses Today* and *Contact Lens Spectrum*, and publishes frequently in ophthalmic journals.

She was named one of America's Best Eye Doctors in 2021 by *Newsweek* and GP Practitioner of the Year by the Gas Permeable Lens Institute in 2023.