

Esterman Visual Field Test

Your Comprehensive Guide

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The Esterman visual field test is often mentioned in the same breath as driver's licensing, but it's more than a means to an end. With this test, you can assess the functional vision of patients with glaucoma (up to 8% of people who walk into your practice) or retinitis pigmentosa, stroke, TBI, injury, AMD, diabetic retinopathy, and more. While monitoring peripheral vision can help assess driving fitness, you can also help support overall quality of life.

You may already offer the Esterman test, but are you using it to its full potential? Learn when this exam is recommended, its uses, and the many diagnoses it can help monitor.

Esterman Visual Field Exam Overview

[Benjamin Esterman developed the test](#) used for driving assessments worldwide in 1967. It provided a quantifiable way to measure patients' visual field function — the Esterman Disability Score (EDS), which has since been updated with the Visual Field Score (VFS).

There are 120 points in the Esterman visual field exam. The monocular version ranges from 70 degrees nasally to 50 degrees temporally, 30 degrees superiorly, and 50 degrees inferiorly. When combined, the binocular Esterman visual field test spans a 136-degree field of vision. This extensive range offers insight into peripheral vision as well as central.

It's a comprehensive, relevant, and straightforward exam, perfect for broad screening. Conducting it with a virtual reality visual field test with the [Carrot](#) device takes this longstanding test into the modern age, so you can easily collect data and track disease progression. It's more comfortable, accessible, and patient-friendly than traditional methods, allowing you to create positive, scalable patient experiences.

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Academic references and clinical validation



A study of 104 patients found the Esterman test to be generally reliable. However, results were less consistent in the peripheral and upper visual field areas, which should be considered when interpreting outcomes.



This study explored the relationship between the Esterman visual field test and the outcomes of on-road driving tests in individuals with visual field defects. Missing more points on the Esterman test was associated with higher odds of failing the driving test.

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Patients need sufficient binocular vision for everyday tasks like driving, socializing, and monitoring their surroundings. [The Esterman test](#) evaluates the combined visual field of both eyes and effectively simulates a driving environment. Optometrists appreciate that this test is easy to administer, provides a clear picture of a patient’s functional vision, and offers insight into conditions like glaucoma and retinitis pigmentosa. However, patients with severe visual field loss can find it challenging or uncomfortable, and it lacks the precision of other visual field tests, such as the 24-2. It’s not especially sensitive to central vision, so patients with defects may need additional testing.

Pros and Cons of the Esterman Field of Vision Test

We know the Esterman field of vision test is efficient, useful, and widely used, but there are pros and cons to incorporating this test into your routine.

PROS	CONS
Real-world relevant and offers a functional assessment of a patient’s vision.	Not the most precise or sensitive visual field exam, so it may not detect subtle vision loss.
Commonly accepted for driver’s licenses, especially for people who have known visual conditions.	Usually limited to binocular testing and can miss vision issues that impact only one eye.
Particularly useful for detecting and monitoring peripheral vision loss and glaucoma.	Patients may find the Esterman test long, and after time, can become distracted, anxious, or fatigued, especially when using traditional tabletop devices.
Relatively simple and patients may find it more comfortable.	Prioritizes peripheral vision and is less effective for detecting central vision defects.

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Glaucoma	The Esterman test is highly effective in detecting peripheral vision loss, which is one of the earliest signs of glaucoma. Monitor glaucoma progression by assessing the patient’s binocular visual field and understand the functional impact of their vision.
Retinitis Pigmentosa	Patients with retinitis pigmentosa experience progressive peripheral vision loss and tunnel vision. The Esterman test is well-suited to detect this condition early because it focuses explicitly on peripheral vision and can track the narrowing of the visual field as the disease progresses.
Stroke	After a stroke, patients may experience hemianopia or other types of visual field loss. The Esterman test is helpful for identifying these defects in both eyes, allowing clinicians to monitor how stroke-induced vision loss affects functional vision.
Diabetic Retinopathy	Diabetic retinopathy can lead to visual field loss due to damage to the retina’s blood vessels, often affecting peripheral vision. The Esterman test helps identify areas of the visual field that may be compromised, which is vital for managing the disease and assessing the impact on activities that require full field vision.
Macular Degeneration	Although macular degeneration primarily affects central vision, some patients may experience associated peripheral vision changes. The Esterman test is instrumental in detecting peripheral vision deficits that can accompany macular degeneration, providing a more comprehensive view of how the disease affects overall vision.
Trauma and Injury	Trauma to the head or eyes can lead to various visual field defects, including loss of peripheral vision. The Esterman test is well-suited for detecting such defects in both eyes, offering a functional understanding of how the injury has affected the patient’s daily activities and driving capability.
Other Conditions	The Esterman test can also be used to monitor or diagnose: Retinal vein/artery occlusion • Optic neuropathy • Autoimmune and inflammatory disorders • Ocular hypertension • Brain tumors

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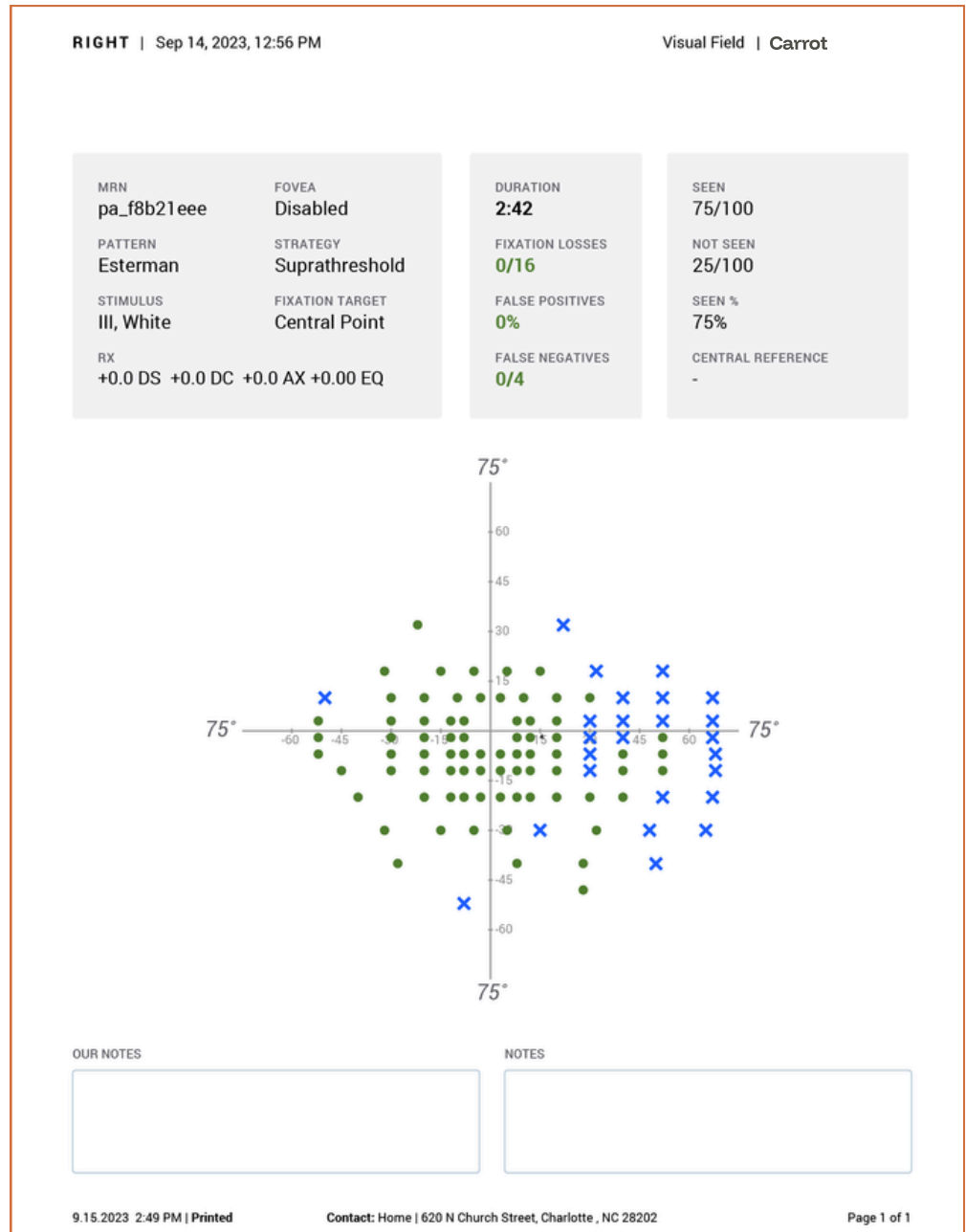
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Billing and Coding for the Esterman Visual Field Exam

The Esterman visual field test is typically billed using CPT code 92083, which is used for an extended visual field exam.

The [Medicare Physician Fee Schedule \(MPFS\)](#) reimburses this exam between \$40 and \$90 per test. Your location, setting, and practice type will impact the actual fees for the Esterman test.

When is the Esterman visual field test required?

The Esterman test assesses a patient's functional vision in real-world tasks — especially driving. People with known visual impairments who need an updated driver's license may need an Esterman test. Pilots and safety-critical professionals may also need this specific exam.

The Esterman visual field test is also often used to screen people for glaucoma, retinitis pigmentosa, stroke-related visual field effects, and other conditions that impact peripheral vision. For these patients, annual or biannual testing is usually recommended.

Is the Esterman test required for driver's licenses?

By name, no. In the United States, each state has its own [driver's licensing vision requirements](#), and only a few explicitly call for an Esterman visual field test score for driving.

Ultimately, the Esterman test is widely used, and its range aligns well with the requirements for driver's licenses. It's highly relevant to real-world driving experiences — but it's not the only accepted method to assess drivers' visual fields.

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The Esterman exam is a practical assessment of functional vision relevant to patients' daily lives. And for patients with common visual field conditions, you can identify tunnel vision early and intervene with treatment sooner.

With [Carrot](#), the test becomes even more accessible. You don't need bulky tabletop perimetry equipment or long office visits. Patients can complete this test, whether required or recommended, faster, more comfortably, and with exceptional accuracy.

Ready to get started?

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