



Consider additional 10-2 visual field testing for diagnosing glaucoma, as limiting to 24-2 or 30-2 tests will frequently miss or underestimate paracentral field defects

The Science behind the Tip^{1,2}

It is well-established that damage to macular retinal ganglion cells (RGCs) occurs early in glaucoma¹. Not testing for this damage may miss glaucoma with paracentral visual field defects. In a prospective study, 62% of eyes with early glaucoma and a normal 24-2 test had an abnormal 10-2 test based on cluster criteria².

Furthermore, 40% of glaucoma suspect eyes and 35% of ocular hypertensive eyes that were classified as normal on 24-2 testing had abnormal 10-2 tests². Only two of the 24-2 or 30-2 test locations fall within “macular vulnerability zone” – the highly susceptible part of the inferior macula associated with superior paracentral field defects¹.

References

- 1) Hood, D. C., Raza, A. S., de Moraes, C. G. V., Liebmann, J. M. & Ritch, R. Glaucomatous damage of the macula. *Prog. Retin. Eye Res.* 32, 1–21 (2013).
- 2) De Moraes, C. G., Hood, D. C., Thenappan, A., Girkin, C. A., Medeiros, F. A., Weinreb, R. N., Zangwill, L. M. & Liebmann, J. M. 24-2 Visual Fields Miss Central Defects Shown on 10-2 Tests in Glaucoma Suspects, Ocular Hypertensives, and Early Glaucoma. *Ophthalmology* 124, 1449– 1456 (2017).