

# Effects of Lens-Induced Astigmatism at Near and Far Distances [Letter]

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## Dear editor

We read with interest the recently published article titled “Effects of Lens-Induced Astigmatism at Near and Far Distances” by Tavazzi et al.<sup>1</sup> We would like to congratulate on their excellent paper. While the study contributes valuable understandings into the impact of lens-induced astigmatism on visual acuity in myopic presbyopes, we would like to highlight some limitations that should be considered in the interpretation of the findings.

**Sample Size and Generalizability:** The study included only fourteen participants, and it is essential to acknowledge that the sample size may limit the generalizability of the results to a broader population. Myopic presbyopes exhibit considerable variability in their visual characteristics, and a larger and more diverse sample could provide a more comprehensive understanding of the effects of lens-induced astigmatism.<sup>2</sup>

**Age-Related Changes:** The study focuses on presbyopic individuals, and while it mentions the age-related changes in astigmatism, it does not specifically address the potential influence of age on the study outcomes. Age-related variations in astigmatism and accommodative responses could impact the study’s conclusions, and further exploration of these factors is warranted.<sup>3</sup>

**Methodological Differences Between Near and Far Measurements:** The study acknowledges methodological differences between near and far measurements, such as the use of different display systems and chart formats. These differences could introduce confounding variables that might affect the comparison of visual acuity degradation at near and far distances. A more standardized approach in experimental design could enhance the robustness of the study.<sup>4</sup>

**Single Masked Crossover Design:** While the study implemented a single masked crossover design, it is crucial to recognize that blinding participants to the randomization scheme might not fully eliminate potential biases. Investigator blinding is mentioned, but further details on the blinding procedures would strengthen the methodological transparency.<sup>5</sup>

**Potential Confounders:** The study does not extensively discuss potential confounding factors, such as individual variations in pupil size, which could influence the results. Additionally, the lack of information on the participants’ daily visual tasks and habits limits the ability to account for factors that might affect their tolerance to lens-induced astigmatism.<sup>6</sup>

In conclusion, these limitations should be taken into account when interpreting the results, even though the study clarifies the effects of lens-induced astigmatism in myopic presbyopes. Addressing these concerns in future research would contribute to a more comprehensive understanding of the complex relationship between astigmatism and visual acuity in this population.

## Disclosure

The authors report no conflicts of interest in this communication.

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