**Comparison of Myopia Progression in Individuals Wearing Defocus Incorporated Multiple Segments (DIMS) Spectacle Lenses for Eight Years versus Shorter Durations**

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**Purpose**

To evaluate the myopia control effectiveness in participants who used Defocus Incorporated Multiple Segments (DIMS) spectacle lenses for 8 years compared to those who wore them for shorter durations.

**Methods**

Data from an eight-year clinical study that tested the myopia control effectiveness was retrospectively reviewed. Sixty-seven participants were included in the analysis: 11 wore DIMS spectacle lenses for 8 years, while the remaining 55 wore them for shorter durations. Twenty participants wore DIMS spectacle lenses for 6 years, 7 participants wore DIMS spectacle lenses for 4 years, 7 participants wore DIMS spectacle lenses for 3.5 years, 4 participants wore DIMS spectacles for 2 years, 12 participants wore DIMS spectacles for 1 year, 6 participants never wore DIMS spectacle lenses. Due to small group sizes, participants were categorized into two groups: those who used DIMS spectacle lenses for 8 years (n=11) and those who used them for less than 8 years (n=55). Myopia progression and axial elongation were compared between the groups using an independent t-test.

**Results**

Participants who wore DIMS spectacle lenses for 8 years experienced a mean myopia progression of -0.44 ± 0.64 D and axial elongation of 0.46 ± 0.64 mm. In contrast, participants with less than 8 years of DIMS wear showed a mean myopia progression of -1.44 ± 1.31 D and axial elongation of 0.88 ± 0.56 mm. Those in the 8-year group demonstrated statistically significant reductions in myopia progression by 1.00 ± 0.41 D ($p=0.017$) and axial elongation by 0.42 ± 0.18 mm ($p=0.019$) compared to the less-than-8-year group.

**Conclusions**

Continuous long-term use of DIMS spectacle lenses for 8 years significantly reduces myopia progression and axial elongation compared to shorter durations. These findings

highlight the long-term benefits of consistent DIMS spectacle lens usage in controlling myopia.

**Layman Abstract (optional): Provide a 50-200 word description of your work that non-scientists can understand. Describe the big picture and the implications of your findings, not the study itself and the associated details.**

Wearing DIMS spectacle lenses for 8 years helps slow the worsening of nearsightedness (myopia) in children better than wearing them for shorter periods. The study found that long-term use reduced both changes in prescription strength and eye growth, showing the importance of continue wear of these lenses for better eye health.