

# An Example of Two Science Camps in the Same Field-Vision

Irlen Syndrome<sup>1</sup> is an area where there is a lack of consensus among scientists. This produces the situation where a person can pick-&-choose scientific ‘facts’ to justify their position.

Irlen Syndrome, also referred to as Scotopic Sensitivity Syndrome (SSS), Visual Stress, or Meares-Irlen Syndrome,<sup>2</sup> is a light-based visual processing disorder. Many mainstream professionals are sceptical of the concept; however, current neuroscience research<sup>3</sup> has successfully documented differences in brain function among this population versus those without the condition.<sup>4</sup>

Treatment involves the use of spectacles with coloured lenses which are selected using an Irlens test.<sup>5</sup>



Early on, occasional studies suggested there was inconclusive evidence for the effectiveness of coloured lenses to specifically address reading difficulties.<sup>6</sup> In addition to that, clinicians in paediatrics, optometry and psychiatry claimed that there was no research to back up claims by Irlens advocates<sup>7</sup> that it was a genuine malady of children and that coloured glasses could help alleviate the condition. As a result, Irlen Syndrome was placed in the area of pseudo science and tests designated as ‘pseudo-medical diagnosis’<sup>8</sup>.

From that position, Irlen Syndrome was attacked by healthcare professionals and also by the media who sourced their information from non-Irlens clinicians. The usual reply from them to enquiries about the syndrome was, “There’s no research to back to claims”. The reason for their disclaimer has been that there is no research in their specific medical field. Being insulated by scientism, the professionals were ‘one-eyed’ and only referenced their own field of science. As a consequence Irlen Syndrome was considered unscientific and rejected in most areas other than education where results were successful.

One ABC news item has the following key points which highlight the disparaging way media portrays Irlens because they didn’t get the complete set of scientific information on it:

- “Irlen syndrome is not recognised by most medical professionals and is diagnosed by a licensed Irlen diagnostician.
- Information on treatments is entering public schools via social media and out-of-hours teacher training sessions.
- Treating the so-called syndrome can stall good interventions known from evidence that works, experts say.”<sup>9</sup>

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1 – [irlen.com](http://irlen.com)

2 – “Irlen Syndrome vs. Visual Stress: Simple Semantics or Something More”

[irlen.com/irlen-syndrome-vs-visual-stress-simple-semantics-or-something-more/](http://irlen.com/irlen-syndrome-vs-visual-stress-simple-semantics-or-something-more/)

3 – e.g. Riddell, P.M.; Wilkins, A.; Hainline, L. (2006). "The effect of colored lenses on the visual evoked response in children with visual stress". *Optom Vis Sci.* 83 (5): 299–305

[journals.lww.com/optvissci/abstract/2006/05000/the\\_effect\\_of\\_colored\\_lenses\\_on\\_the\\_visual\\_evoked.9.aspx](http://journals.lww.com/optvissci/abstract/2006/05000/the_effect_of_colored_lenses_on_the_visual_evoked.9.aspx)

4 – PARAGRAPH: [en.wikipedia.org/wiki/Irlen\\_syndrome](http://en.wikipedia.org/wiki/Irlen_syndrome) [FREE to use and edit]

(Text is available under the [Creative Commons Attribution-ShareAlike License 4.0](https://creativecommons.org/licenses/by-sa/4.0/))

5 – GRAPHIC: “Ombraz Limited Edition Dolomite Black Ice.jpg” [This work is free and may be used by anyone for any purpose.]

[commons.wikimedia.org/wiki/File:Ombraz\\_Limited\\_Edition\\_Dolomite\\_Black\\_Ice.jpg](https://commons.wikimedia.org/wiki/File:Ombraz_Limited_Edition_Dolomite_Black_Ice.jpg)

6 – e.g. Ritchie SJ, Della Sala S, McIntosh RD (October 2011). "Irlen colored overlays do not alleviate reading difficulties" *Pediatrics.* 128 (4): e932–8. (doi:10.1542/peds.2011-0314)

[publications.aap.org/pediatrics/article-abstract/128/4/e932/30786/Irlen-Colored-Overlays-Do-not-Alleviate-Reading](http://publications.aap.org/pediatrics/article-abstract/128/4/e932/30786/Irlen-Colored-Overlays-Do-not-Alleviate-Reading)

7 – e.g. The Australasian Association of Irlens Consultants (AAIC) [aaic.org.au](http://aaic.org.au)

8 – “Alternative medicine is any practice that aims to achieve the healing effects of medicine despite lacking biological plausibility, testability, repeatability or evidence of effectiveness.” [en.wikipedia.org/wiki/Alternative\\_medicine](http://en.wikipedia.org/wiki/Alternative_medicine)

9 – “Irlen syndrome, the condition medical experts say doesn't exist, promoted to school teachers” (26-6-2019)

[www.abc.net.au/news/2019-06-26/irlen-syndrome-medical-eye-condition-controversy/11218184](http://www.abc.net.au/news/2019-06-26/irlen-syndrome-medical-eye-condition-controversy/11218184)

In more recent times, the broader literature now covers the success of the treatment to address physical symptoms, migraines, attention challenges, depth perception, ocular movement, and light sensitivity. This includes those diagnosed with conditions such as autism,<sup>10</sup> ADHD,<sup>11</sup> brain injury,<sup>12</sup> stroke, and learning disabilities.<sup>13</sup>

For more information on Irlen Syndrome, investigate: [aaic.org.au](http://aaic.org.au)

**NOTE:** This is just another example where appealing to science can give the wrong impression because the wrong sources were used to pass judgement on something.

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10 – e.g. Ludlow, A. K.; Giannadou, A.; Franklin, A.; Allen, P.M.; Simmons, D.R.; Wilkins, A. (2020). "The possible use of precision tinted lenses to improve social cognition in children with Autism Spectrum Disorders" *Vision Research*. 170: 53–59

[www.sciencedirect.com/science/article/pii/S0042698920300481](https://www.sciencedirect.com/science/article/pii/S0042698920300481)

11 – e.g. Loew, S. J.; Watson, K. (2013). "The prevalence of symptoms of scotopic sensitivity/Meares-Irlen syndrome in subjects diagnosed with ADHD: Does misdiagnosis play a significant role?". *Croatian Review of Rehabilitation Research*. 49: 64–72

12 – Tosta, S.; Anderson, A. (2019). "Precision-Tinted Spectral Filters Reduce TBI-Related Migraines and Visual Cortical Sensitivity". *Brain Injury* 33:162

13 – PARAGRAPH: [en.wikipedia.org/wiki/Irlen\\_syndrome](https://en.wikipedia.org/wiki/Irlen_syndrome) [FREE to use and edit]

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