

CADTH Reference List

# Therapeutic Glasses for People With Vision Problems Following Concussion

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## Key Messages

- No relevant literature was identified about the clinical effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion.
- No relevant literature was identified about the cost-effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion.

## Research Questions

1. What is the clinical effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion?
2. What is the cost-effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion?

## Methods

### Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were therapeutic glasses, brain injuries, vision rehabilitation, and vision disorders. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was completed on May 19, 2022 and limited to English-language documents published since January 1, 2017. Internet links were provided, where available.

## Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed.

## Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified about the clinical effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion. Additionally,

**Table 1: Selection Criteria**

Criteria	Description
<b>Population</b>	People with vision problems (e.g., oculomotor dysfunctions, binocular vision dysfunctions, accommodative dysfunctions) following concussion
<b>Intervention</b>	Therapeutic glasses (e.g., anti-fatigue lenses, prism glasses, pinhole glasses)
<b>Comparator</b>	No treatment (e.g., usual care, wait list)
<b>Outcomes</b>	Q1: Clinical effectiveness (e.g., severity of symptoms [e.g., photophobia, migraine], quality of life, satisfaction with treatment, adverse events) Q2: Cost-effectiveness (e.g., cost per quality-adjusted life-year gained)
<b>Study designs</b>	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, economic evaluations

no relevant economic evaluations were identified about the cost-effectiveness of therapeutic glasses for the treatment of people with vision problems following concussion.

References of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

## References

### Health Technology Assessments

No literature identified.

### Systematic Reviews

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Economic Evaluations

No literature identified.

## Appendix 1: References of Potential Interest

### Previous CADTH Reports

1. Non-pharmacological interventions for the management of concussion. (*CADTH Scoping summary*). Ottawa (ON): CADTH; 2021: <https://www.cadth.ca/sites/default/files/pdf/de0100-concussion-scoping-summary.pdf>. Accessed 2022 May 26.

### Systematic Reviews – Mixed Population and Unclear Intervention

2. Longley V, Hazelton C, Heal C, et al. Non-pharmacological interventions for spatial neglect or inattention following stroke and other non-progressive brain injury. *Cochrane Database Syst Rev*. 07 01 2021;7:CD003586. [PubMed](#)

### Non-Randomized Studies – Alternative Intervention

3. Johansson J, Nygren de Boussard C, Oqvist Seimyr G, Pansell T. The effect of spectacle treatment in patients with mild traumatic brain injury: a pilot study. *Clin Exp Optom*. May 2017;100(3):234-242. [PubMed](#)

### Review Articles

4. Bansal S, Green K. Application of colored filters in patients post-traumatic brain injury: a review. *NeuroRehabilitation*. 2022;50(3):321-330. [PubMed](#)
5. Johnson R. Disorders of higher visual processing in patients with acquired brain injury. *NeuroRehabilitation*. 2022;50(3):331-341. [PubMed](#)
6. Mollica A, Dey A, Cairncross M, Silverberg N, Burke MJ. Neuropsychiatric treatment for mild traumatic brain injury: nonpharmacological approaches. *Semin Neurol*. Feb 03 2022;03:03. [PubMed](#)