INPLASY

Supplements and ergogenic aids in electronic sports: A systematic review

INPLASY202520042

doi: 10.37766/inplasy2025.2.0042

Received: 7 February 2025

Published: 7 February 2025

Erices-Valdivia, D; Cortés González, K; Guerra-Valencia, J; Montalva-Valenzuela, F; Andrades-Ramírez, O ; Antón, M; Ferrari; Jorquera-Aguilera, C; Castillo-Paredes, A.

Corresponding author:
Oscar Andrades-Ramírez

oandradesramirez@gmail.com

Author Affiliation:
Universidad Andres Bello - Universidad Catolica de la Santisima Concepción.

ADMINISTRATIVE INFORMATION

Support - Without support.

Review Stage at time of this submission - Piloting of the study selection process.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202520042

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 7 February 2025 and was last updated on 7 February 2025.

INTRODUCTION

Review question / Objective Analyze and describe the articles referring to the use and effects of Esports supplementation or ergogenic aids in esports gamers' performance.

Rationale Regarding nutrition, a review article states that micronutrients such as vitamins, minerals, and biologically active substances can improve cognitive functions such as alertness, attention, reaction time, concentration, working memory, motor skills, and physical fitness. However, a literature review is still needed to prove the effects of sports nutrition or supplementation on the body of Egamers or Eathletes.

Condition being studied Due to the competitiveness of these sports, Eatletas spend hours in front of a computer screen, it must be considered that most of the competitive disciplines involved in Esports do not contribute to an increase in physical activity or exercise, they do generate cognitive and psychological demands on the participant. Instead, these athletes develop fine motor skills, in which Eatletas must press the correct keys on the control device (joystick, console controller, mouse, keyboard, etc.) at the right time within precise time frames.

METHODS

Search strategy The keywords used were ("e-Sport") OR ("e-Sports") OR ("Electronic sport") OR ("Electronic sports") OR ("esport") OR ("esports") AND ("Diet") OR ("Supplementation") OR ("Supplements") OR ("Sports Supplements") OR ("Substances") AND ("performance").

Participant or population The following inclusion criteria were used: a) Studies conducted on e-athletes or e-sports practitioners; b) participants must be 18 years or older.

Intervention Not applicable.

Comparator Not applicable.

Study designs to be included Crossover design trial, counterbalanced and parallel arm intervention.

Eligibility criteria Experimental or quasi-experimental research.

Information sources The search was conducted in four databases, including Scopus, WoS, PubMed, and SciELO.

Main outcome(s) Sports supplements were identified as commonly used by esports gamers.

Quality assessment / Risk of bias analysis For the evaluation of the methodology, the PEDro scale was used.

Strategy of data synthesis Authors should describe how the data will be analysed.

Subgroup analysis Not applicable.

Sensitivity analysis Not applicable.

Language restriction English language.

Country(ies) involved Chile - Universidad Andres Bello - Universidad Catolica de la Santisima Concepción.

Keywords eSports; electronic sports; nutrition; supplementation; performance.

Contributions of each author

Author 1 - Daniela Erices-Valdivia - Conceptualization, writing—original draft preparation.
Email: danierices nutricion@gmail.com
Author 2 - Karina Cortés-González - methodology, writing—original draft preparation.
Email: karinac.nutricionista@gmail.com
Author 3 - Jamee Guerra-Valencia - software.
Email: jamee.guerra.valencia@gmail.com
Author 4 - Felipe Montalva-Valenzuela - validation.
Email: fmontalvav@uft.edu
Author 5 - Oscar Andrades-Ramírez - formal analysis.
Email: o.andradesramirez@uandresbello.edu
Author 6 - Marcos Antón - investigation.
Email: marcos.antonr@professor.universidadviu.com
Author 7 - Gerson Ferrari - data curation.
Email: marcos.antonr@professor.universidadviu.com
Author 8 - Carlos Jorquera-Aguilera.
Email: carlos.jorquera@mayor.cl
Author 9 - Antonio Castillo-Paredes - project administration.
Email: acastillop85@gmail.com