

INPLASY202580053
doi: 10.37766/inplasy2025.8.0053
Received: 15 August 2025
Published: 16 August 2025

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**Hand and wrist injuries in e-Sports practitioners:
a literature review**

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ADMINISTRATIVE INFORMATION

Support - None. This systematic review does not receive external financial support.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202580053

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 August 2025 and was last updated on 16 August 2025.

INTRODUCTION

Review question / Objective Review Question: What are the most common hand and wrist injuries among esports players? Objective: To identify the most common hand and wrist injuries among esports players. "What are the most common hand and wrist injuries among esports players?"

Rationale The number of eSports players has grown significantly over the last decade. However, little is known about the musculoskeletal impacts of this activity, especially on the hands and wrists —areas subject to repetitive and prolonged use. Despite the increase in clinical complaints and anecdotal reports of pain, there are no up-to-date systematic reviews on the topic. This study seeks to fill this gap in the scientific literature and provide useful evidence for prevention and rehabilitation.

Condition being studied Musculoskeletal injuries (such as tendonitis, tenosynovitis, carpal tunnel

syndrome, chronic pain, etc.) that affect the hands and wrists of e-Sports players, related to prolonged playing of electronic games.

METHODS

Search strategy Descritores utilizados: “e-sports”, “jogos eletrônicos”, “hand”, “lesão na mão”, “wrist”, “lesão no punho”, “injury”, “pain”, “dor” Operadores booleanos: (“e-sports” OR “jogos eletrônicos”) AND (“hand” OR “lesão na mão”) AND (“wrist” OR “lesão no punho”) AND (“injury” OR “pain” OR “dor”) Bases de dados e interfaces: PubMed (via MEDLINE) ScienceDirect Scielo LILACS.

Participant or population E-Sports players, professional or amateur, with no restrictions on age, gender or competitive level.

Intervention Not applicable. This is an observational, descriptive review, with no intervention evaluation.

Comparator Does not apply.

Study designs to be included Observational studies (cross-sectional, cohort, case-control).

Eligibility criteria

Inclusion:

Published between 2015 and 2025

Language: Portuguese, English, or Spanish

Studies involving e-sports players

Studies addressing hand and/or wrist injuries associated with e-sports

Present relevant data on the association between e-sports and injuries

Exclusion:

Published before 2015

In languages other than Portuguese, English, or Spanish

Studies addressing injuries to other parts of the body

Studies on traditional (non-electronic) sports.

Information sources

PubMed/MEDLINE

ScienceDirect

Scielo

LILACS.

Main outcome(s) Frequency and types of hand and wrist injuries.

Description of injuries (e.g., tendonitis, carpal tunnel syndrome).

Relationship with practice time or playing habits.

Additional outcome(s) Prevention or management strategies reported in the studies.

Data management Two independent reviewers will perform data screening and extraction.

Disagreements will be resolved by consensus.

Rayyan software will be used for screening.

Data will be organized in Microsoft Excel.

Quality assessment / Risk of bias analysis JBI Tool.

Strategy of data synthesis

Narrative synthesis.

Data will be grouped by injury type and reported frequency.

Quantitative meta-analysis will not be performed.

Subgroup analysis Does not apply.

Sensitivity analysis If there are studies with low methodological quality, a sensitivity analysis will be performed excluding these studies to verify the robustness of the findings.

Language restriction Only studies published in Portuguese, English or Spanish will be included.

Country(ies) involved Brazil.

Other relevant information None.

Keywords "e-Sports"; "esportes eletrônicos"; "lesão de mão"; "lesão de punho".

Dissemination plans The results will be submitted for publication in journals in the field of Sports Medicine and presented at national scientific conferences.

Contributions of each author

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