

# Increased Severity of Ocular & Oculofacial Injuries In Major League Baseball

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## Introduction

- **Oculofacial injuries in baseball** can result in serious trauma due to high-speed pitches.
- In **2023, MLB implemented a pitch clock** to accelerate game pace, reducing player preparation time between pitches.
- This study evaluates whether the **pitch clock rule change affected the frequency or severity of oculofacial injuries** in MLB players.

## Method

Retrospective review of publicly available data on oculofacial injuries sustained by Major League Baseball players between the 2019 and 2024 seasons.

**Inclusion criteria:** Traumatic injuries resulting in missed games, verified through primary sources including MLB.com, ESPN, ProSportsTransactions.com, and video footage.

**Primary outcome:** Injury severity, defined by the number of games missed (“days out”).

**Secondary outcomes:** Injury frequency and distribution by anatomical site and mechanism.

**Statistical analyses:** Injury characteristics before (2019–2022) and after (2023–2024) the MLB pitch clock rule change using Mann-Whitney U, Chi-square, and Kruskal-Wallis tests, with significance set at  $p < 0.05$ .

## Contact Information

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## References

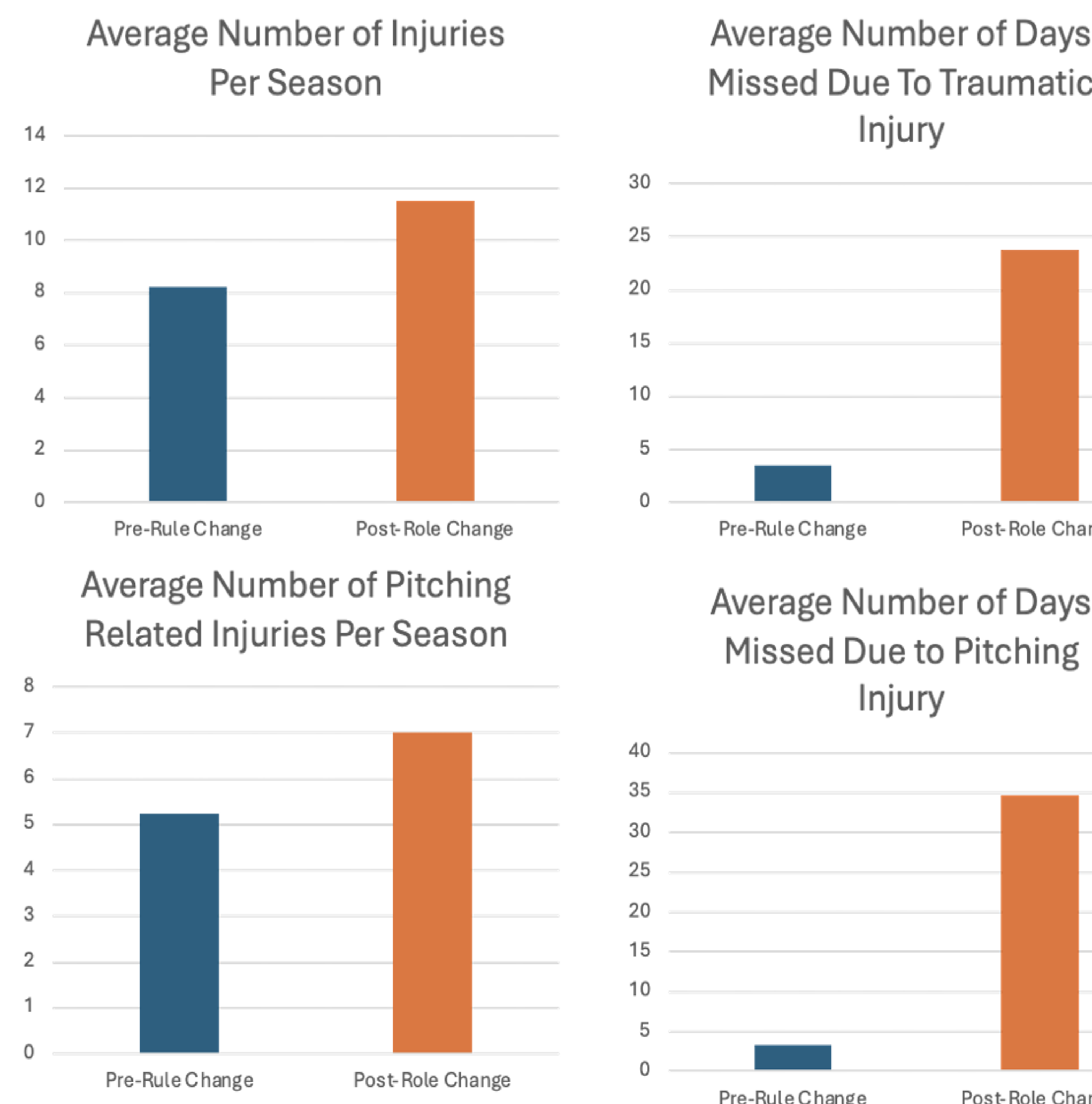


## Results

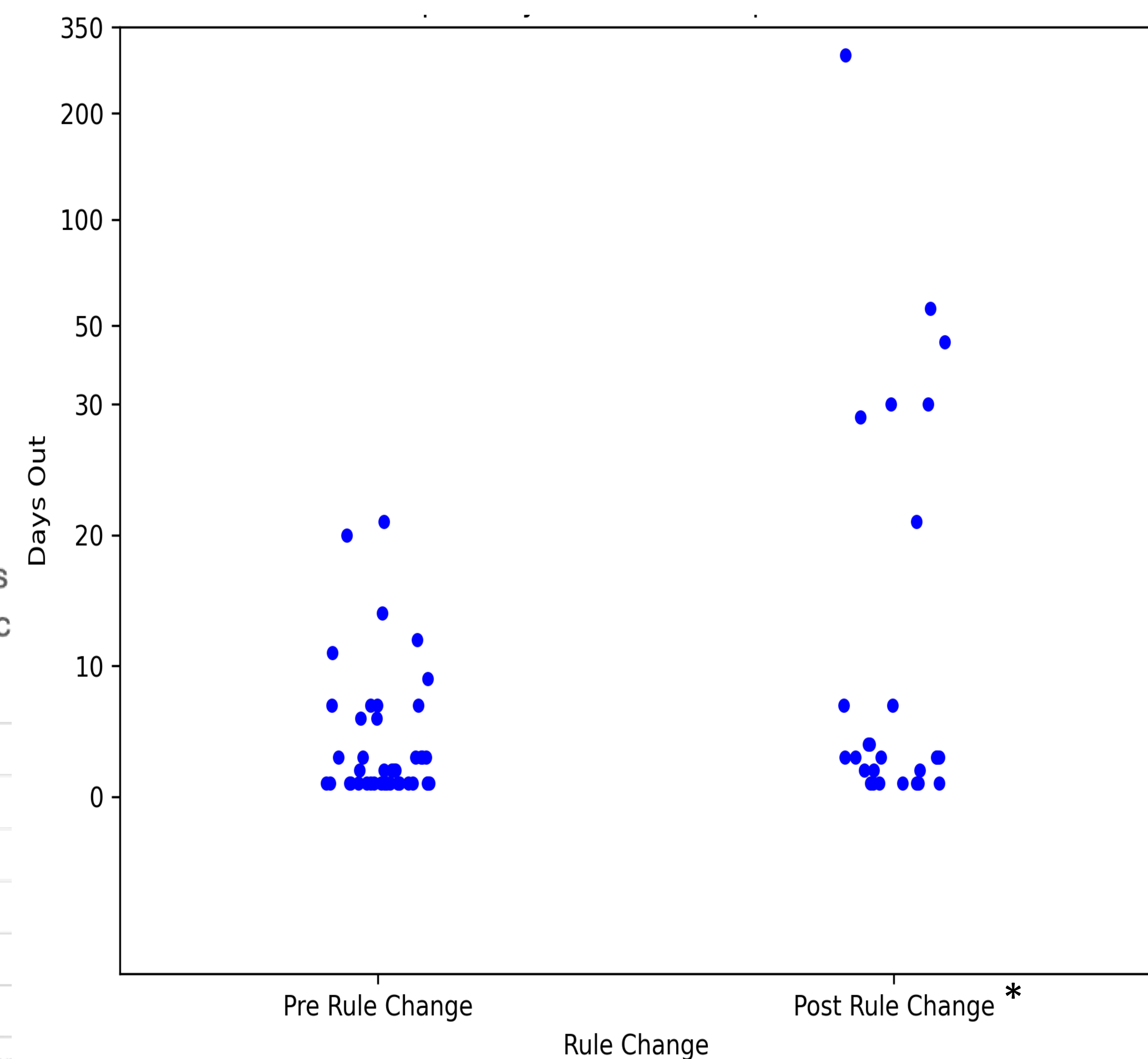
**Table 1: Comparison of injury frequency and severity before and after MLB rule change.**

| Finding                     | Pre-Rule | Post-Rule | Total | p-Value |
|-----------------------------|----------|-----------|-------|---------|
| Total Injuries (2019–2024)  | 33       | 23        | 56    | -       |
| Days Out (Pitching-Related) | 3.25     | 34.64     | -     | 0.001   |
| Days Out (Periorbital Only) | 3.31     | 42.4      | -     | 0.005   |

**Figure 1: Comparison of average injuries per season and average days missed due to traumatic and pitching-related oculofacial injuries before (2019–2022) and after (2023–2024) MLB rule change.**



**Figure 2: Days missed due to injury increased significantly following the MLB pitch clock rule change, indicating greater injury severity post-implementation.**



## Conclusion

- Pitch clock implementation led to a **significant rise in severity of pitching-related and periorbital injuries**, despite stable injury frequency.
- Results support the need for **further research of protective equipment**
- **Limitations:** limited access to pathologic outcome and use of days missed as a severity proxy