

CONTEXT

- Still **poorly understood** condition.
- **Epidemiological data**: scattered or even contradictory.
- After physical trauma: ~ 5% **incidence** in recent prospective cohorts¹⁻³.
- **Outcomes**: spontaneous recovery vs. chronic pain and disability⁴⁻⁸.
One year after onset of the condition^{1,4,6}:
 - Nearly none are symptoms free,
 - **14-27 %** still meet Budapest criteria.
- Some **risk factors** for the onset are identified⁹.
- But (early) **prognostic factors** = unknown: ~~secondary prevention~~.
- No recent systematic review on the topic.

OBJECTIVE

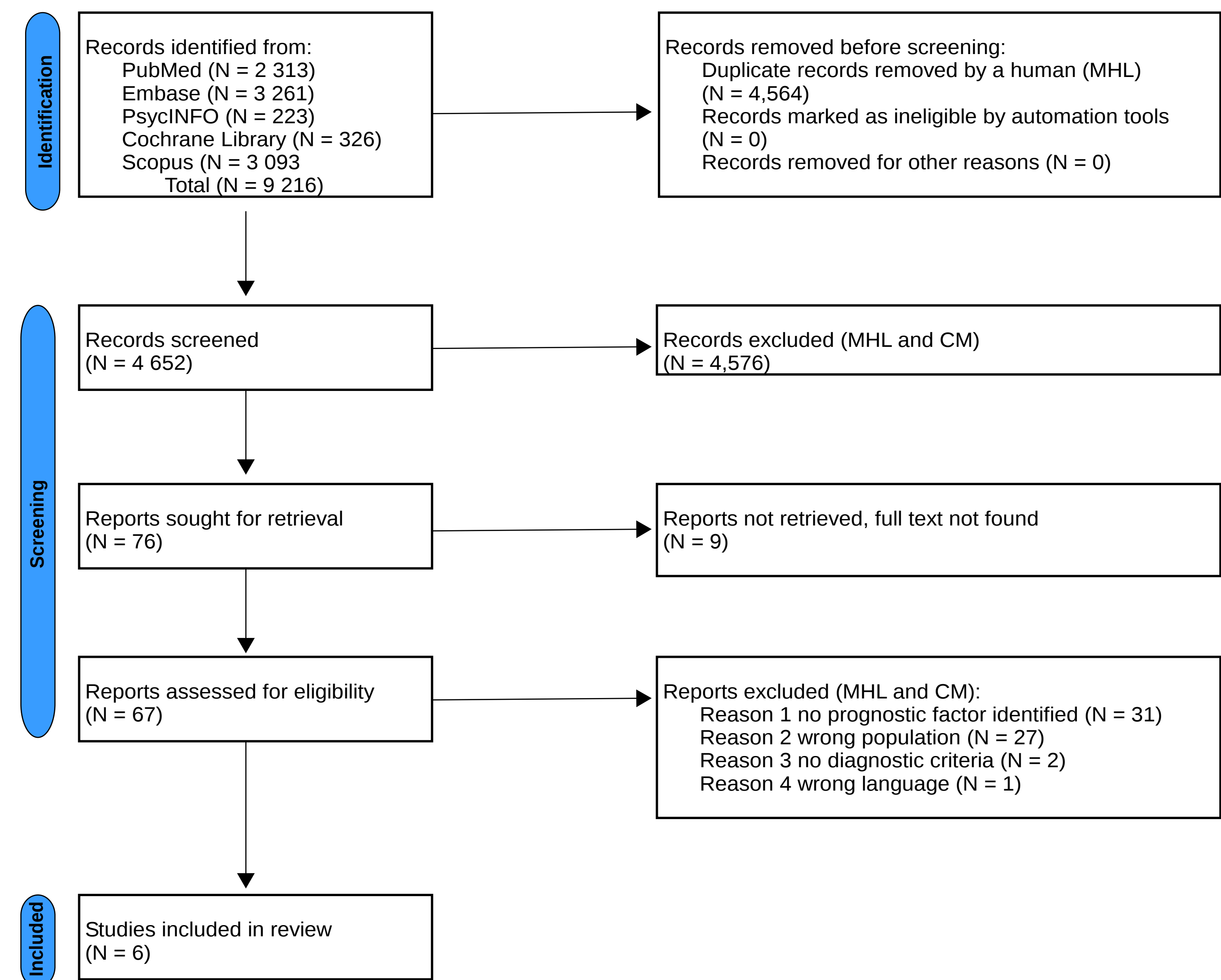
- Identify and summarize early prognostic factors in adult CRPS.

METHODS

- Followed PRISMA guidelines & protocol registered on PROSPERO.
- Selection criteria:
 - **Period**: Jan. 1990 to Nov. 2021;
 - **Databases**: PubMed, Embase, PsycINFO, Cochrane Library & Scopus;
 - **Study design**: longitudinal & cross-sectional;
 - Identification of **≥ 1 early prognostic factors** (< 12 weeks from the onset) with an impact on:
 - (1) pain, (2) CRPS Severity Score (CSS), (3) disability, (4) return to work or (5) quality of life.
- Risk of bias: **Quality In Prognostic Studies** (QUIPS) tool¹⁰.
- Certainty of evidence: qualitative synthesis¹¹.

RESULTATS

- Six studies included from 4 652 different articles¹²⁻¹⁷.
- Risk of bias: low (N=2)¹²⁻¹³ and high (N=4)¹⁴⁻¹⁷.



- **Twenty-one early factors** identified, negatively impacting:

return to work (N = 3), CSS (N = 3), disability (N = 2) or pain (N= 1).

	Level of Evidence	Positive Prognostic Factors	Negative Prognostic Factors
Non-modifiable	Moderate evidence	Demographic factor: - <i>Being a male</i> *	Demographic factor: - <i>Being a female</i> * Event related factor: - <i>High-energy trauma</i> °
	Limited evidence	Localization: - <i>Upper limb</i> °	Localization: - <i>Distal joint</i> ° - <i>Lower limb</i> ° Work related variables: - <i>Work injury</i> ° - <i>High occupational physical demands</i> * Self-reported factors: - <i>Higher pain sensivity score</i> °
	No evidence	Demographic factors: - <i>Age</i> - <i>Limb dominance</i>	
Modifiable	Moderate evidence		Self-reported factors: - <i>Higher disability</i> * - <i>Higher pain intensity</i> * - <i>Higher anxiety</i> * - <i>Higher pain-related fear</i> *
	Limited evidence		Symptoms/signs: - <i>Lower pressure pain threshold</i> ° - <i>Clinical score for algodystrophy > 7 at 6 weeks</i> ° - <i>Restricted ankle/wrist extension</i> * - <i>Allodynia symptom</i> ° - <i>Sweating symptom</i> ° - <i>Motor sign</i> ° Self-reported factors: - <i>Higher depression score</i> * - <i>Higher body perception disturbance</i> ° - <i>Lower perceived ownership of the limb</i> ° - <i>Higher catastrophizing score</i> °
	No evidence	Demographic factors: - <i>BMI</i> - <i>Smoking habits</i> - <i>Treatments</i>	

*Significant in multivariable analysis, °only in univariable analysis

CONCLUSION

- **Lack of knowledge** about early prognostic factors in CRPS.
- **Psychological factors** investigated in one single cohort.
- **Clinical significance**: identification of at risk patients in early stage.
 - > Stratification according to their risk.
 - > Tailored therapeutic management.
 - > Reducing risk of chronification.

Link to the published article:



<https://onlinelibrary.wiley.com/doi/10.1002/ejp.2068>

[1] Beerthuizen, Pain, 2012, [2] Bruehlh, J. Pain, 2022, [3] A. Sousa, Neurol India, 2022, [4] Sandroni, Pain, 2003, [5] Bean, Pain, 2016, [6] de Mos Clin. J. Pain, 2009, [7] Brunner, Eur. J. Pain, 2017, [8] Bean, J. Pain, 2014, , [9] Pons, Anesthesiol. Res. Pract., 2015, [10] Hayden, Ann Intern. Med, 2013, [11] Hayden, Cochrane Database Syst Rev, 2014, [12] Bean, Pain, 2015, [13] Bean, Clin. J. Pain, 2016, [14] Roh, Pain Med. Malden Mass, 2019, [15] Laulan,J HAND SURG GBR, 1997, [16] Dauty, Annals of Physical and Rehabilitation Medicine, 2001, [17] Dumas J. Occup. Environ. Med., 2011.