

Systematic Review

General Paediatric Concussion Search

OVID Medline:

1. exp Brain Concussion/
2. concuss\$.tw.
3. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.
4. [mtbi.tw](#)
5. exp Brain Injury/
6. (((severe or moderate) adj2 (head or brain or traumatic or tbi)) not (mild or minor)).ti.
7. 5 not 6
8. or/1-4,7
9. 8 and (child* or adolescen*).mp.
10. 9 not (animal/ not human/)
11. limit 10 to English
12. limit 11 to yr="1985-Current"

Ovid Embase:

1. Brain Concussion/ or Concussion/
2. concuss\$.tw.
3. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.
4. [mtbi.tw](#)
5. exp Brain Injury/
6. (((severe or moderate) adj2 (head or brain or traumatic or tbi)) not (mild or minor)).ti.
7. 5 not 6

8. or/1-4,7
9. 8 and (child* or adolescen*).mp.
10. 9 NOT ((exp animal/ or nonhuman/ NOT exp human)
11. limit 10 to English
12. limit 11 to yr="1985-Current"

Ovid PsycInfo:

1. exp Brain Concussion/
2. concuss\$.tw.
3. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.
4. [mtbi.tw](#)
5. exp Head Injuries/ OR exp Traumatic Brain Injury/
6. (((severe or moderate) adj2 (head or brain or traumatic or tbi)) not (mild or minor)).ti.
7. 5 not 6
8. or/1-4,7
9. limit 8 to (childhood or adolescence <13 to 17 years>)
10. (minors or minors* or boy or boys or boyfriend or boyhood or girl* or kid or kids or child or child* or children* or schoolchild* or schoolchild).mp. or school child.ti,ab. or school child*.ti,ab. or (adolescen* or juvenil* or youth* or teen* or under*age* or pubescen*).mp. or exp pediatrics/ or (pediatric* or paediatric* or peadiatric*).mp. or school.ti,ab. or school*.ti,ab.
11. 8 and 10
12. 9 or 11
13. limit 12 to English
14. limit 13 to yr="1985-Current"

To these 3 searches, we will also search the **Grey Literature:**

Open Grey

Clinical trials.gov

Google Advanced

Inclusion

- Paediatric (<18 years)
- School aged (≥ 5 years)
- Sport Concussion
- Original Research
- English
- 1985- May 2016

Exclusion

- Moderate or severe traumatic brain injuries (defined as Glasgow Coma Scale score <13, open head injury, positive computed tomography findings [ie, small extraxial bleed, epidural bleed, subdural bleed, intracerebral hematoma, diffuse cerebral edema, subarachnoid hemorrhage, cerebral contusion, intraventricular hemorrhage, pneumocephalus, depressed skull fracture, basilar skull fracture, and linear skull fracture], neurosurgical intervention, intubation, or required admission to the pediatric intensive care unit).
- Patients with no clear history of head trauma as the primary event
- Non accidental injury
- Review, Editorial, Case Reports, Opinion Articles, Letter to the Editor
- Non-English
- Mixed age cohorts in which paediatric data were not reported separate from adult data
- Not baby/neonate/infant (focus is Sports Concussion)

Subsection Questions

Age

Medline

13. 12 AND (age factors/ OR age.tw)

Embase

13. 12 AND (age/ OR age.tw)

PsycInfo

15. 14 and Age differences/ or age discrimination/ or chronological age/ or age.tw.

Symptoms and Signs

MEDLINE:

13. (diagnos* and (symptom* or sign*)).tw.

14. 12 and 13

Embase

13. (diagnos* and (symptom* or sign*)).tw.

14. 12 and 13

PsycInfo

15. (diagnos* and (symptom* or sign*)).tw.

16. 14 and 15

Neuropsychological tests

Medline

13. 12 AND (Neuropsychological Tests/ OR neuropsychological test.tw)

Embase

13. 12 AND (neuropsychological test/ OR neuropsychological test.tw)

PsycInfo

15. 14 AND (Neuropsychological Assessment/ OR neuropsychological test.tw)

Normal duration

MedLine:

13. ((duration OR rate OR length) AND recovery).mp.

14. 12 and 13

Embase:

13. ((duration OR rate OR length) AND recovery).mp

14. 12 and 13

PsycInfo

15. ((duration OR rate OR length) AND recovery).mp.

16. 14 and 15

Predictors

Medline

1. exp Brain Concussion/

2. Post-Concussion Syndrome/

3. (concuss\$ or postconcuss\$).tw.

4. (commotio cerebri or post traumatic encephalopathy).tw.

5. ((post commotion or post contusion or post head injury) adj2 syndrome*).tw.

6. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.

7. [mtbi.tw.](#)

8. exp Brain Injuries/

9. ((post or persistent or unresolved or delayed) adj4 (brain or skull or head or injury)).mp.

10. 8 and 9

11. or/1-7,10

12. (((severe or moderate) adj2 (head or brain or traumatic or tbi)) not (mild or minor)).ti.

13. 11 not 12

14. 13 and (child* or adolescent or infan*).mp.

15. 14 not (animal/ not human/)

16. limit 15 to english

17. limit 27 to yr="1985 -Current"

Embase

1. Brain Concussion/ or Concussion/

2. PostConcussion Syndrome/

3. (concuss\$ or postconcuss\$).tw.

4. (commotio cerebri or post traumatic encephalopathy).tw.

5. ((Post commotion or post contusion or post head injury) adj2 syndrome\$).tw.

6. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.

7. [mtbi.tw](#).

8. exp Brain Injury/

9. ((post or persistent or unresolved or delayed) adj4 (brain or skull or head or injury)).mp.

10. (((severe or moderate) adj2 (head or brain or traumatic or tbi)) not (mild or minor)).ti.

11. (8 and 9) not 10

12. or/1-7,11

13. 12 and (child* or adolescent or infan*).mp.

14. exp animals/ or exp invertebrate/ or animal experiment/ or animal model/ or animal tissue/ or animal cell/ or nonhuman/

15. 14 not exp human/

16. 13 not 15

17. limit 16 to english

18. limit 17 to yr="1985 -Current"

PsycINFO

1. brain concussion/

2. (concuss* or postconcuss*).tw.

3. (commotio cerebri or post traumatic encephalopathy).tw.

4. ((post commotion or post contusion or post head injury) adj2 syndrome*).tw.

5. ((mild or minor or minimal) adj (traumatic brain or tbi)).tw.

6. [mtbi.tw](#).

7. traumatic brain injury/

8. ((post or persistent or unresolved or delayed) adj4 (brain or skull or head or injury)).mp.

9. 7 and 8

10. or/1-6,9

11. limit 10 to (childhood or adolescence <13 to 17 years>)

12. (minors or minors* or boy or boys or boyfriend or boyhood or girl* or kid or kids or child or child* or children* or schoolchild* or schoolchild).mp. or school child.ti,ab. or school child*.ti,ab. or (adolescen* or juvenil* or youth* or teen* or under*age* or pubescen*).mp. or exp pediatrics/ or (pediatric* or paediatric* or peadiatric*).mp. or school.ti,ab. or school*.ti,ab. or (prematu* or preterm*).mp.

13. 10 and 12

14. 11 or 13

15. limit 14 to english language

16. limit 15 to yr="1985 -Current"

Rest

MedLine:

13. rest.tw.

14. 12 and 13

Embase:

13. rest.tw.

14. 12 and 13

PsycInfo

15. rest.tw.

16. 14 and 15

Return to School

Medline

13. (return* adj3 (school or learn*)).mp.

14. 12 and 13

Embase

13. (return* adj3 (school or learn*)).mp.

14. 12 and 13

PsycInfo

15. (return* adj3 (school or learn*)).mp.

16. 14 and 15

Return to sport

Medline

13. Return to sport/

14. (return* adj3 (sport* or play* or activit*)).mp.

15. 12 and (13 or 14)

Embase

13. (return* adj3 (sport* or play* or activit*)).mp.

14. 12 and 13

PsycInfo

15. (return* adj3 (sport* or play* or activit*)).mp.

16. 14 and 15