

**JATH01-Ocular motor disorders in children and adults with mTBI: A scoping review (JL)**

Databases: PubMed, Embase, PEDro, and REHABDATA

Notes – Ovid Medline not needed because all of PubMed

**PubMed** ~6,045**Date run: 15Feb2023: 6,045 results**

#1	"Craniocerebral Trauma"[Mesh:NoExp] OR "Head Injuries, Closed"[Mesh] OR "Brain Injuries, Traumatic"[Mesh:NoExp] OR "Brain Concussion"[Mesh] OR "Brain Contusion"[Mesh] OR "Whiplash Injuries"[Mesh]
#2	(concussion*[tw] OR concussed[tw] OR postconcuss*[tw] OR "post concuss*" [tw] OR postconcuss*[tw] OR subconcuss*[tw] OR "sub concuss*" [tw] OR whiplash[tw] OR "mTBIs"[tw] OR "pmTBI"[tw] OR "c/mTBI"[tw] OR "commotio cerebri*" [tw])
#3	((mild[tw] OR minor[tw] OR "non severe"[tw]) AND ("traumatic brain"[tw] OR tbi[tw] OR tbis[tw] OR "posttraumatic brain"[tw] OR "traumatic head"[tw] OR "posttraumatic head"[tw]))
#4	((mild[tw] OR minor[tw] OR "non severe"[tw]) AND ("brain injur*" [tw] OR "brain trauma*" [tw] OR "brain contusion*" [tw]))
#5	((mild[tw] OR minor[tw] OR "non severe"[tw]) AND ("head injur*" [tw] OR "head trauma*" [tw] OR "head contusion*" [tw] OR "craniocerebral trauma*" [tw] OR "craniocerebral injur*" [tw] OR "craniocerebral contusion*" [tw] OR "cerebral trauma*" [tw] OR "cerebral injur*" [tw] OR "cerebral contusion*" [tw]))
#6	(Neurotrauma*[tw] OR "neuro-trauma*" [tw])
#7	#1 OR #2 OR #3 OR #4 OR #5 OR #6
#8	"Oculomotor Nerve"[Mesh] OR "Ocular Motility Disorders"[Mesh] OR "Ocular Physiological Phenomena"[Mesh] OR "Spasm"[Mesh] OR "Visual Perception"[Mesh] OR "Vision Disorders"[Mesh] OR "Diagnostic Techniques, Ophthalmological"[Mesh] OR "Vestibular Evoked Myogenic Potentials"[Mesh] OR "Reflex, Vestibulo-Ocular"[Mesh] OR "Lenses"[Mesh] OR "Refractive Errors"[Mesh] OR "Pupil Disorders"[Mesh] OR "Botulinum Toxins, Type A"[Mesh] OR "Asthenopia"[Mesh] OR "Eye Pain"[Mesh] OR "Orthoptics"[Mesh]
#9	(oculomotor[tw] OR "ocular motor"[tw] OR vision[tw] OR visual[tw] OR ophthalmologic*[tw] OR ophthalmoplegia*[tw] OR ophthalmopares*[tw] OR "third nerve"[tw] OR "third cranial nerve"[tw] OR "cranial nerve III"[tw] OR vergence[tw] OR convergence[tw] OR accommodation[tw] OR accommodative[tw] OR insufficiency[tw] OR spasm*[tw] OR tracking[tw] OR "eye movement*" [tw] OR saccad*[tw] OR microsaccad*[tw] OR fixation[tw] OR "eye gaze*" [tw] OR "smooth pursuit*" [tw] OR strabismus[tw] OR phoria*[tw] OR squint*[tw] OR esophoria*[tw] OR exophoria*[tw] OR esotropia*[tw] OR esodeviation*[tw] OR "cross eye*" [tw] OR crosseye*[tw] OR exodeviation*[tw] OR lenses[tw] OR refractive[tw] OR tints[tw] OR tinted[tw] OR prism[tw] OR "patching"[tw] OR occlusion[tw] OR binasal[tw] OR pupil[tw] OR pupils[tw] OR pupillary[tw] OR font[tw] OR botox[tw] OR botulinum[tw] OR blur[tw] OR blurry[tw] OR blurred[tw] OR diplopia*[tw] OR polyopsia*[tw] OR asthenopia*[tw] OR "eye strain*" [tw] OR eyestrain*[tw] OR "eye pain*" [tw] OR eyepain*[tw] OR "VOMS"[tw] OR "OMAT"[tw] OR "NPC"[tw] OR "CISS"[tw] OR "BIVSS"[tw] OR orthoptic*[tw] OR pleoptic*[tw] OR photophobia*[tw] OR "light sensitiv*" [tw])
#10	#8 OR #9
#11	#7 AND #10

#12	("Animals"[Mesh] NOT "Humans"[Mesh])
#13	#11 NOT #12

## Embase

Date run: 15Feb2023: 10,296 results

- #1 'traumatic brain injury'/de  
 #2 'pediatric traumatic brain injury'/de  
 #3 'brain concussion'/de  
 #4 'brain contusion'/de  
 #5 'whiplash injury'/de  
 #6 'postconcussion syndrome'/de  
 #7 concussion\*:ab,ti,kw OR concussed:ab,ti,kw OR 'post concuss\*':ab,ti,kw OR postconcuss\*:ab,ti,kw OR subconcuss\*:ab,ti,kw OR 'sub concuss\*':ab,ti,kw OR whiplash:ab,ti,kw OR 'mtbis':ab,ti,kw OR 'pmtbi':ab,ti,kw OR 'c/mtbi':ab,ti,kw OR 'commotio cerebri\*':ab,ti,kw  
 #8 (mild:ab,ti,kw OR minor:ab,ti,kw OR 'non severe':ab,ti,kw) AND ('traumatic brain':ab,ti,kw OR tbi:ab,ti,kw OR tbis:ab,ti,kw OR 'posttraumatic brain':ab,ti,kw OR 'traumatic head':ab,ti,kw OR 'posttraumatic head':ab,ti,kw)  
 #9 (mild:ab,ti,kw OR minor:ab,ti,kw OR 'non severe':ab,ti,kw) AND ('brain injur\*':ab,ti,kw OR 'brain trauma\*':ab,ti,kw OR 'brain contusion\*':ab,ti,kw)  
 #10 (mild:ab,ti,kw OR minor:ab,ti,kw OR 'non severe':ab,ti,kw) AND ('head injur\*':ab,ti,kw OR 'head trauma\*':ab,ti,kw OR 'head contusion\*':ab,ti,kw OR 'craniocerebral trauma\*':ab,ti,kw OR 'craniocerebral injur\*':ab,ti,kw OR 'craniocerebral contusion\*':ab,ti,kw OR 'cerebral trauma\*':ab,ti,kw OR 'cerebral injur\*':ab,ti,kw OR 'cerebral contusion\*':ab,ti,kw)  
 #11 neurotrauma\*:ab,ti,kw OR 'neuro trauma\*':ab,ti,kw  
 #12 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11  
 #13 'oculomotor nerve'/exp  
 #14 'eye movement disorder'/exp  
 #15 'visual system function'/exp  
 #16 'muscle spasm'/exp  
 #17 'visual disorder'/exp  
 #18 'vision'/exp  
 #19 'visual system examination'/exp  
 #20 'vestibular evoked myogenic potential'/exp  
 #21 'vestibuloocular reflex'/exp  
 #22 'lens (optics)'/exp  
 #23 'refraction error'/exp  
 #24 'pupil disease'/exp  
 #25 'botulinum toxin a'/exp  
 #26 'asthenopia'/exp  
 #27 'eye pain'/exp  
 #28 'orthoptics'/exp

#29 oculomotor:ab,ti,kw OR 'ocular motor':ab,ti,kw OR vision:ab,ti,kw OR visual:ab,ti,kw OR ophthalmologic\*:ab,ti,kw OR ophthalmoplegia\*:ab,ti,kw OR ophthalmopares\*:ab,ti,kw OR 'third nerve':ab,ti,kw OR 'third cranial nerve':ab,ti,kw OR 'cranial nerve iii':ab,ti,kw OR vergence:ab,ti,kw OR convergence:ab,ti,kw OR accommodation:ab,ti,kw OR accommodative:ab,ti,kw OR insufficiency:ab,ti,kw OR spasm\*:ab,ti,kw OR tracking:ab,ti,kw OR saccad\*:ab,ti,kw OR microsaccad\*:ab,ti,kw OR fixation:ab,ti,kw OR 'eye gaze\*':ab,ti,kw OR 'smooth pursuit\*':ab,ti,kw OR strabismus:ab,ti,kw OR phoria\*:ab,ti,kw OR squint\*:ab,ti,kw OR esophoria\*:ab,ti,kw OR exophoria\*:ab,ti,kw OR esotropia\*:ab,ti,kw OR esodeviation\*:ab,ti,kw OR 'cross eye\*':ab,ti,kw OR crosseye\*:ab,ti,kw OR exodeviation\*:ab,ti,kw OR lenses:ab,ti,kw OR refractive:ab,ti,kw OR tints:ab,ti,kw OR tinted:ab,ti,kw OR prism:ab,ti,kw OR 'patching':ab,ti,kw OR occlusion:ab,ti,kw OR binasal:ab,ti,kw OR pupil:ab,ti,kw OR pupils:ab,ti,kw OR pupillary:ab,ti,kw OR font:ab,ti,kw OR botox:ab,ti,kw OR botulinum:ab,ti,kw OR blur:ab,ti,kw OR blurry:ab,ti,kw OR blurred:ab,ti,kw OR diplopia\*:ab,ti,kw OR polyopsia\*:ab,ti,kw OR asthenopia\*:ab,ti,kw OR 'eye strain\*':ab,ti,kw OR eyestrain\*:ab,ti,kw OR 'eye pain\*':ab,ti,kw OR eyepain\*:ab,ti,kw OR 'voms':ab,ti,kw OR 'omat':ab,ti,kw OR 'npc':ab,ti,kw OR 'eye movement\*':ab,ti,kw OR 'ciss':ab,ti,kw OR 'bivss':ab,ti,kw OR orthoptic\*:ab,ti,kw OR pleoptic\*:ab,ti,kw OR photophobia\*:ab,ti,kw OR 'light sensitiv\*':ab,ti,kw

#30 #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29

#31 #12 AND #30

#32 ('animals'/exp OR 'invertebrate'/exp OR 'animal experiment'/exp OR 'animal tissue'/exp OR 'animal cell'/exp OR 'nonhuman'/exp) NOT 'humans'/exp

#33 #31 NOT #32

## PEDro

**Date run: 15Feb2023: 82 records**

Topic: neurotrauma, whiplash

Abstract & Title: oculomotor, ocular, vision, visual\*, eye\*

## RehabData

**Date run: 15Feb2023: 2,343 records**

With at least one of these words:

mtbi "traumatic brain" "traumatic head" "brain injury" "head injury" concussion contusion whiplash neurotrauma

With all of these words:

Ocular

Oculomotor

Vision

Visual

eye\*

Ophthalmol\*  
Vestibulo-Ocular  
Lenses  
Pupil\*  
Botulinum  
"third nerve"  
"cranial nerve III"  
Vergence,  
Convergence  
Accommodation  
Accommodative  
Insufficiency  
Strabismus  
Prism  
Patching  
Occlusion  
Botox  
Blurred  
diplopia\*  
photophobia\*  
"light sensitive"  
"light sensitivity"