

Supplementary Table 1. ICD-9/-10 codes used to identify cycling injury hospitalizations.

ICD Code	Description
ICD-9	
E800-E807(.3)	Railway accidents – injured pedal cyclist
E810-E816, E818-E819(.6)	Motor Vehicle Traffic Accidents – injured pedal cyclist
E820-E825(.6)	Motor vehicle nontraffic accidents – injured pedal cyclist
E826-E829(.1)	Other Road vehicle accidents – injured pedal cyclist
ICD-10-CA	
V10-V19 (including all fourth digit subdivisions)	Pedal cyclist injured in transport accident

Supplementary Table 2. ICD-9/-10 codes used to identify head injuries. Head injury diagnosis codes were selected based on the Canadian Institute for Health Information’s definition of head injuries⁽¹⁾ and the Centres for Disease Control’s definition of traumatic brain injury.⁽²⁾

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
ICD-9				
800-804	FRACTURE OF SKULL			
800	Fracture of vault of skull			
800.0	Closed without mention of intracranial injury		✓	
800.1	Closed with cerebral laceration and contusion	✓		
800.2	Closed with subarachnoid, subdural, and extradural hemorrhage	✓		
800.3	Closed with other and unspecified intracranial hemorrhage	✓		
800.4	Closed with intracranial injury of other and unspecified nature	✓		
800.5	Open without mention of intracranial injury		✓	
800.6	Open with cerebral laceration and contusion	✓		
800.7	Open with subarachnoid, subdural, and extradural hemorrhage	✓		
800.8	Open with other and unspecified intracranial hemorrhage	✓		
800.9	Open with intracranial injury of other and unspecified nature	✓		
801	Fracture of base of skull			
801.0	Closed without mention of intracranial injury		✓	
801.1	Closed with cerebral laceration and contusion	✓		
801.2	Closed with subarachnoid, subdural, and extradural hemorrhage	✓		
801.3	Closed with other and unspecified intracranial hemorrhage	✓		
801.4	Closed with intracranial injury of other and unspecified nature	✓		
801.5	Open without mention of intracranial injury		✓	
801.6	Open with cerebral laceration and contusion	✓		
801.7	Open with subarachnoid, subdural, and extradural hemorrhage	✓		
801.8	Open with other and unspecified intracranial hemorrhage	✓		
801.9	Open with intracranial injury of other and unspecified nature	✓		
802	Fracture of face bones			

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
802.0	Nasal bones, closed			✓
802.1	Nasal bones, open			✓
802.2	Mandible, closed			✓
802.3	Mandible, open			✓
802.4	Malar and maxillary bones, closed			✓
802.5	Malar and maxillary bones, open			✓
802.6	Orbital floor (blow-out), closed			✓
802.7	Orbital floor (blow-out), open			✓
802.8	Other facial bones, closed			✓
802.9	Other facial bones, open			✓
803	Other and unqualified skull fractures			
803.0	Closed without mention of intracranial injury		✓	
803.1	Closed with cerebral laceration and contusion	✓		
803.2	Closed with subarachnoid, subdural, and extradural hemorrhage	✓		
803.3	Closed with other and unspecified intracranial hemorrhage	✓		
803.4	Closed with intracranial injury of other and unspecified nature	✓		
803.5	Open without mention of intracranial injury		✓	
803.6	Open with cerebral laceration and contusion	✓		
803.7	Open with subarachnoid, subdural, and extradural hemorrhage	✓		
803.8	Open with other and unspecified intracranial hemorrhage	✓		
803.9	Open with intracranial injury of other and unspecified nature	✓		
804	Multiple fractures involving skull or face with other bones			
804.0	Closed without mention of intracranial injury		✓	
804.1	Closed with cerebral laceration and contusion	✓		
804.2	Closed with subarachnoid, subdural, and extradural hemorrhage	✓		
804.3	Closed with other and unspecified intracranial hemorrhage	✓		
804.4	Closed with intracranial injury of other and unspecified nature	✓		
804.5	Open without mention of intracranial injury		✓	
804.6	Open with cerebral laceration and contusion	✓		
804.7	Open with subarachnoid, subdural, and extradural hemorrhage	✓		
804.8	Open with other and unspecified intracranial hemorrhage	✓		

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
804.9	Open with intracranial injury of other and unspecified nature	✓		
850-854	INTRACRANIAL INJURY, EXCLUDING THOSE WITH SKULL FRACTURE			
850	Concussion			
850.0	With no loss of consciousness	✓		
850.1	With brief loss of consciousness	✓		
850.11	With loss of consciousness of 30 minutes or less	✓		
850.12	With loss of consciousness from 31 to 59 minutes	✓		
850.2	With moderate loss of consciousness	✓		
850.3	With prolonged loss of consciousness and return to pre-existing conscious level	✓		
850.4	With prolonged loss of consciousness, without return to pre-existing conscious level	✓		
850.5	With loss of consciousness of unspecified duration	✓		
850.9	Concussion, unspecified	✓		
851	Cerebral laceration and contusion			
851.0	Cortex (cerebral) contusion without mention of open intracranial wound	✓		
851.1	Cortex (cerebral) contusion with open intracranial wound	✓		
851.2	Cortex (cerebral) laceration without mention of open intracranial wound	✓		
851.3	Cortex (cerebral) laceration with open intracranial wound	✓		
851.4	Cerebellar or brain stem contusion without mention of open intracranial wound	✓		
851.5	Cerebellar or brain stem contusion with open intracranial wound	✓		
851.6	Cerebellar or brain stem laceration without mention of open intracranial wound	✓		
851.7	Cerebellar or brain stem laceration with open intracranial wound	✓		
851.8	Other and unspecified cerebral laceration and contusion, without mention of open intracranial wound	✓		
851.9	Other and unspecified cerebral laceration and contusion, with open intracranial wound	✓		
852	Subarachnoid, subdural, and extradural hemorrhage, following injury			
852.0	Subarachnoid hemorrhage following injury without mention of open intracranial wound	✓		
852.1	Subarachnoid hemorrhage following injury with open intracranial wound	✓		

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
852.2	Subdural hemorrhage following injury without mention of open intracranial wound	✓		
852.3	Subdural hemorrhage following injury with open intracranial wound	✓		
852.4	Extradural hemorrhage following injury without mention of open intracranial wound	✓		
852.5	Extradural hemorrhage following injury with open intracranial wound	✓		
853	Other and unspecified intracranial hemorrhage following injury			
853.0	Without mention of open intracranial wound	✓		
853.1	With open intracranial wound	✓		
854	Intracranial injury of other and unspecified nature			
854.0	Without mention of open intracranial wound	✓		
854.1	With open intracranial wound	✓		
959	Injury, other and unspecified			
959.01	Head injury, unspecified		✓	
870	Open wound of ocular adnexa			
870.0	Laceration of skin of eyelid and periocular area			✓
870.1	Laceration of eyelid, full-thickness, not involving lacrimal passages			✓
870.2	Laceration of eyelid involving lacrimal passages			✓
870.3	Penetrating wound of orbit, without mention of foreign body			✓
870.4	Penetrating wound of orbit with foreign body			✓
870.8	Other specified open wounds of ocular adnexa			✓
870.9	Unspecified open wound of ocular adnexa			✓
871	Open wound of eyeball			
871.0	Ocular laceration without prolapse of intraocular tissue			✓
871.1	Ocular laceration with prolapse or exposure of intraocular tissue			✓
871.2	Rupture of eye with partial loss of intraocular tissue			✓
871.3	Avulsion of eye			✓
871.4	Unspecified laceration of eye			✓
871.5	Penetration of eyeball with magnetic foreign body			✓
871.6	Penetration of eyeball with (nonmagnetic) foreign body			✓
871.7	Unspecified ocular penetration			✓
871.9	Unspecified open wound of eyeball			✓
872	Open wound of ear			
872.0	External ear, without mention of complication			✓
872.1	External ear, complicated			✓
872.6	Other specified parts of ear, without mention of complication			✓

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
872.7	Other specified parts of ear, complicated			✓
872.8	Ear, part unspecified, without mention of complication			✓
872.9	Ear, part unspecified, complicated			✓
873	Other open wound of head			
873.0	Scalp, without mention of complication		✓	
873.1	Scalp, complicated		✓	
873.2	Nose, without mention of complication			✓
873.3	Nose, complicated			✓
873.4	Face, without mention of complication			✓
873.5	Face, complicated			✓
873.6	Internal structures of mouth, without mention of complication			✓
873.7	Internal structures of mouth, complicated			✓
873.8	Other and unspecified open wound of head without mention of complication		✓	
873.9	Other and unspecified open wound of head, complicated		✓	
925	Crushing injury of face, scalp and neck			
925.1	Crushing injury of face and scalp		✓	
ICD-10				
S01	Open wound of head			
S01.0	Open wound of scalp		✓	
S01.1	Open wound of eyelid and periocular area			✓
S01.2	Open wound of nose			✓
S01.3	Open wound of ear			✓
S01.4	Open wound of cheek and temporomandibular area			✓
S01.5	Open wound of lip and oral cavity			✓
S01.7	Multiple open wounds of head		✓	
S01.8	Open wound of other parts of head		✓	
S01.9	Open wound of head, part unspecified		✓	
S01.10	Open wound of eyelid and periocular area			✓
S02	Fracture of skull and facial bones			
S02.0	Fracture of vault of skull		✓	
S02.1	Fracture of base of skull		✓	
S02.2	Fracture of nasal bones			✓
S02.3	Fracture of orbital floor			✓
S02.4	Fracture of malar and maxillary bones			✓
S02.5	Fracture of tooth			✓
S02.6	Fracture of mandible			✓
S02.7	Multiple fractures involving skull and facial bones		✓	
S02.8	Fractures of other skull and facial bones		✓	
S02.9	Fracture of skull and facial bones, part unspecified		✓	
S06	Intracranial injury			

ICD Code	Definition	Brain Injury	Scalp/Skull Injury	Face Injury
S06.0	Concussion	✓		
S06.1	Traumatic cerebral oedema	✓		
S06.2	Diffuse brain injury	✓		
S06.3	Focal brain injury	✓		
S06.4	Epidural haemorrhage	✓		
S06.5	Traumatic subdural haemorrhage	✓		
S06.6	Traumatic subarachnoid haemorrhage	✓		
S06.7	Intracranial injury with prolonged coma	✓		
S06.8	Other intracranial injuries	✓		
S06.9	Intracranial injury, unspecified	✓		
S07	Crushing injury of face			
S07.0	Crushing injury of skull		✓	
S07.1	Crushing injury of other parts of head		✓	
S07.8	Crushing injury of head, part unspecified		✓	
S07.9	Crushing injury of face			✓
S09	Other and unspecified injuries of head			
S09.7	Multiple injuries of head		✓	
S09.8	Other specified injuries of head		✓	
S09.9	Unspecified injury of head		✓	
T02	Fractures involving multiple body regions			
T02.0	Fractures involving head with neck		✓	

REFERENCES

1. Head Injuries in Canada: A Decade of Change (1994-1995 to 2003-2004). Canadian Institute of Health Information; 2006.
2. Faul M, Xu L, Wald M, Coronado V. Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations and Deaths 2002-2006. [Internet]. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2010. Available from: <http://www.cdc.gov/TraumaticBrainInjury>