

---

# National Health Statistics Reports

---

Number 150 ■ December 28, 2020

## The 2020 *International Classification of Diseases, 10th Revision, Clinical Modification* Injury Diagnosis Framework for Categorizing Injuries by Body Region and Nature of Injury

by Holly Hedegaard, M.D., M.S.P.H., National Center for Health Statistics; Renee L. Johnson, M.S.P.H., R.P.T., National Center for Injury Prevention and Control; Matthew F. Garnett, M.P.H., National Center for Health Statistics; and Karen E. Thomas, M.P.H., National Center for Injury Prevention and Control

### Abstract

**Background**—Injury diagnosis frameworks, or matrices, based on the *International Classification of Diseases* (ICD) provide standardized categories for reporting injuries by body region and nature of injury. In 2016, the National Center for Health Statistics (NCHS) and the National Center for Injury Prevention and Control (NCIPC) published a proposed injury diagnosis matrix for use with data coded using the *ICD, 10th Revision, Clinical Modification* (ICD–10–CM). At the time the proposed matrix was developed, ICD–10–CM coded data were not available to evaluate the performance of the proposed matrix. As data became available, NCHS and NCIPC received recommendations from clinicians and researchers to improve the consistency and clinical applicability of categorization of codes within the matrix. This report describes the modifications made to the 2016 proposed ICD–10–CM injury diagnosis matrix and presents the final 2020 ICD–10–CM injury diagnosis matrix.

**Methods**—Comments on the 2016 proposed matrix were received from several federal agencies, military health centers, state health departments, researchers, and others. Additionally, subject matter experts from NCHS, NCIPC, the Council of State and Territorial Epidemiologists, and others reviewed code descriptions, coding guidelines, updates to the ICD–10–CM code set, and other materials to identify possible needed changes to the 2016 proposed ICD–10–CM injury diagnosis matrix.

**Results**—Consideration of issues raised by clinicians and researchers and from the internal review resulted in relocation of approximately 3% of the 9,000 codes in the 2016 proposed ICD–10–CM injury diagnosis matrix. These relocations generally involved changes to the assigned nature-of-injury category. Additionally, approximately 200 new injury diagnosis codes not available at the time the 2016 proposed matrix was developed were added to create the final 2020 matrix.

**Conclusions**—The 2020 final ICD–10–CM injury diagnosis matrix provides standard categories for reporting injuries by body region and nature of injury. Use of this tool promotes consistency for comparisons across populations and over time.

**Keywords:** injury surveillance • injury morbidity • injury diagnosis matrix • classification

### Introduction

Injury diagnosis frameworks, such as the Barell matrix (1) and the Injury Mortality Diagnosis (IMD) matrix (2), provide standardized categories for reporting injuries by body region and nature of injury. Nature of injury refers to the type of anatomic or physiologic disruption (e.g., fractures, dislocations, sprains, open wounds, burns, injuries to internal organs, or poisoning) that occurred as a result of an injury event (e.g., fall, motor vehicle crash, gunshot, or ingestion). The use of injury diagnosis frameworks (matrices) promotes consistency when monitoring injuries over time and across data sources.

The Barell and IMD matrices are based on nature-of-injury (i.e., injury diagnosis) codes from the *International Classification of Diseases* (ICD). ICD is a classification system developed and published by the World Health Organization to promote international comparability in the collection, classification, and presentation of mortality statistics (3). In the United States, the *ICD, Ninth Revision* (ICD–9) was used to classify mortality data from 1979 to 1998 and the *ICD, 10th*



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics



Revision (ICD–10) was used from 1999 forward. Clinical modifications of ICD have also been developed for use with morbidity data (4,5). Though structurally similar to ICD for mortality, the clinical modifications provide an expanded set of codes needed for capturing the detailed information obtained in clinical settings. In the United States, the *ICD, Ninth Revision, Clinical Modification* (ICD–9–CM) was used to classify morbidity data from 1979 through September 30, 2015. Injury diagnosis matrices were developed for use with ICD–9–CM-coded morbidity data (the Barell matrix) (1) and for use with ICD–10 coded mortality data (the IMD matrix) (2). These matrices have provided guidance for standardized categorization of injury diagnosis codes for more than 20 years.

Effective October 1, 2015, the U.S. Department of Health and Human Services required all hospitals and health care providers covered by the Health Insurance Portability and Accountability Act to use the *ICD, 10th Revision, Clinical Modification* (ICD–10–CM) rather than ICD–9–CM to report medical information in administrative data (5). In anticipation of this change, in 2016, the National Center for Health Statistics (NCHS) and the National Center for Injury Prevention and Control (NCIPC) published a proposed ICD–10–CM injury diagnosis matrix for presenting injury data using ICD–10–CM nature-of-injury (diagnosis) codes (6).

### Development of the 2016 proposed ICD–10–CM injury diagnosis matrix

The process for developing the 2016 proposed ICD–10–CM injury diagnosis matrix has been described in detail elsewhere (6). A brief description is provided here. In general, the process involved creating the basic structure of the matrix (rows and columns) and then placing the ICD–10–CM nature-of-injury codes in a given body-region-by-nature-of-injury cell within the matrix. In developing the proposed matrix, aspects of both the ICD–9–CM injury diagnosis matrix for morbidity data (1) and the ICD–10 injury diagnosis matrix for mortality data (2) and differences between the two matrices were considered (6). The basic structure of the 2016 proposed ICD–10–CM injury diagnosis matrix is modeled on that of the ICD–10 matrix, with additional rows and columns as needed for better comparability with the ICD–9–CM matrix.

This approach resulted in the basic structure of the 2016 proposed ICD–10–CM injury diagnosis matrix shown in the [Figure](#). Row labels indicate the body region of injury and column headings indicate the nature of injury. There are six major body region categories (Head and neck, Spine and back, Torso, Extremities, Unclassifiable by body region, and Unspecified) that are further subdivided into up to two additional levels of body regions to provide greater specificity. There are 15 major nature-of-injury categories, 2 of which are further subdivided based on the detailed information provided in the codes (i.e., Burns and corrosions, divided

into separate columns for Burns and for Corrosions; and Other specified injury, divided into separate columns for Sprains and strains, Injury to nerves, Injury to muscles and tendons, and Other injury).

The next step in developing the 2016 proposed ICD–10–CM injury diagnosis matrix involved placement of the individual ICD–10–CM nature-of-injury (diagnosis) codes in a specific body-region-by-nature-of-injury cell. A subset of the injury diagnosis codes from Chapter 19 of the ICD–10–CM tabular list were included in the 2016 proposed matrix ([Table A](#)) (7). Several guiding principles were considered to determine code placement:

- Because most ICD–10–CM codes were derived from ICD–10 codes and because the underlying structure of the 2016 proposed ICD–10–CM injury diagnosis matrix was based on that of the ICD–10 injury diagnosis matrix for mortality data, in general, a code was first placed in the same cell as the related ICD–10 code in the ICD–10 injury diagnosis matrix.
- For each ICD–10–CM injury diagnosis code, consideration was then given to where the equivalent ICD–9–CM code was placed in the ICD–9–CM injury diagnosis matrix. General equivalence mappings (GEMs) were used to identify the equivalent ICD–9–CM code(s) for each ICD–10–CM code (8). GEMs are a tool produced by NCHS and the Centers for Medicare & Medicaid Services (CMS) to assist in translating between different versions of the clinical modifications of ICD. For each ICD–10–CM injury diagnosis code, the body region

**Table A. International Classification of Diseases, 10th Revision, Clinical Modification nature-of-injury codes included in the 2016 proposed injury diagnosis matrix**

ICD–10–CM nature-of-injury code	Type of injury
All S codes . . . . .	Anatomic injuries
T07–T34 . . . . .	Foreign bodies, burns, corrosions, frostbite
T36–T50 with a 6th character of 1, 2, 3, or 4 (exceptions: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9, which are included if they have a 5th character of 1, 2, 3, or 4) . . . . .	Drug poisoning (excludes adverse effects and underdosing)
T51–T65 . . . . .	Toxic effects of substances nonmedicinal as to source
T66–T76 . . . . .	Other and unspecified effects of external causes (radiation, heat, light, hypo/hyperthermia, asphyxiation, child/adult abuse, lightning, drowning, motion sickness, etc.)
T79 . . . . .	Certain early complications of trauma, not elsewhere classified

NOTE: ICD–10–CM is the *International Classification of Diseases, 10th Revision, Clinical Modification*.  
 SOURCES: National Center for Health Statistics and National Center for Injury Prevention and Control.

Figure. Conceptual framework for the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification* injury diagnosis matrix

Body region of injury		Nature of injury																		
		Fracture	Dislocation	Internal organ injury	Open wound	Amputation	Blood vessel	Superficial injury or contusion	Crushing	Burns and corrosions		Effect of foreign body entering orifice	Other effects of external causes	Poisoning	Toxic effects	Other specified injury			Unspecified injury	
		...	...	...	...	...	...	...	...	Burns	Corrosions	...	...	...	...	Sprains and strains	Injury to nerves	Injury to muscles and tendons	Other injury	...
Head and neck	Traumatic brain injury	...																		
	Other head, face, and neck	Face																		
		Eye																		
		Other head																		
		Neck																		
Other head and neck																				
Spine and back	Spinal cord (SCI)	Cervical SCI																		
		Thoracic SCI																		
		Lumbar SCI																		
		Sacral or coccygeal SCI																		
	Vertebral column (VCI)	Cervical VCI																		
		Thoracic VCI																		
		Lumbar VCI																		
		Sacral or coccygeal VCI																		
Torso	Chest (thorax)	...																		
	Abdomen	...																		
	Pelvis	External genitalia																		
		Pelvic organs																		
		Lower back and pelvis																		
		Pelvic girdle																		
		Buttock																		
		Other																		
	Other trunk	...																		

ICD-10-CM nature-of-injury codes

Figure. Conceptual framework for the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification* injury diagnosis matrix—Con.

Body region of injury		Nature of injury																				
		Fracture	Dislocation	Internal organ injury	Open wound	Amputation	Blood vessel	Superficial injury or contusion	Crushing	Burns and corrosions		Effect of foreign body entering orifice	Other effects of external causes	Poisoning	Toxic effects	Other specified injury			Unspecified injury			
		...	...	...	...	...	...	...	...	Burns	Corrosions	...	...	...	...	Sprains and strains	Injury to nerves	Injury to muscles and tendons	Other injury	...		
Extremities	Upper extremity	Shoulder and upper arm																				
		Forearm and elbow																				
		Wrist, hand, and fingers																				
		Arm, not further specified																				
	Lower extremity	Hip																				
		Upper leg and thigh																				
		Knee																				
		Lower leg and ankle																				
		Foot and toes																				
		Ankle and foot																				
Unclassifiable by body region	Multiple body regions	...																				
	Systemwide	...																				
Unspecified	...	...																				

ICD-10-CM nature-of-injury codes

... Category not applicable.

SOURCES: National Center for Health Statistics and National Center for Injury Prevention and Control.

and nature-of-injury location of the ICD–9–CM GEMs equivalent in the ICD–9–CM injury diagnosis matrix was noted. Most codes showed agreement between the ICD–9–CM and ICD–10 injury diagnosis matrices in terms of body region and nature-of-injury categories. However, for some codes, the ICD–9–CM GEMs equivalent was found in a different cell in the ICD–9–CM injury diagnosis matrix than the ICD–10 parent code in the ICD–10 injury diagnosis matrix. When this occurred, the GEMs equivalent took precedence over the ICD–10 parent code, and the ICD–10–CM code in the 2016 proposed ICD–10–CM injury diagnosis matrix was moved from the location of the parent code in the ICD–10 injury diagnosis matrix to the comparable location of the ICD–9–CM GEMs equivalent code in the ICD–9–CM injury diagnosis matrix. Thus, for some codes, the location of the ICD–10–CM code in the 2016 proposed ICD–10–CM injury diagnosis matrix differed from that of the parent ICD–10 code in the ICD–10 injury diagnosis matrix.

- Given the greater detail provided in the ICD–10–CM code description, some codes previously assigned to less specific categories in the ICD–9–CM or ICD–10 injury diagnosis matrices, such as Unclassifiable by body region or Other specified injury, could be placed in more specific cells in the 2016 proposed ICD–10–CM injury diagnosis matrix.

## Purpose of this report

At the time the 2016 proposed ICD–10–CM injury diagnosis matrix was developed, ICD–10–CM coded data were not available to evaluate the proposed code placements. As ICD–10–CM coded administrative data became available, NCHS and NCIPC received input from stakeholders regarding needed adjustments for some of the code placements. Additionally, the ICD–10–CM Coordination and Maintenance Committee annually

updates the overall ICD–10–CM code set (9). These updates have resulted in new ICD–10–CM diagnosis codes that did not exist at the time the 2016 proposed injury diagnosis matrix was developed. This report highlights the adjustments made to the 2016 proposed ICD–10–CM injury diagnosis matrix and presents the 2020 final ICD–10–CM injury diagnosis matrix.

## Methods

Since publication of the proposed ICD–10–CM injury diagnosis matrix in January 2016, NCHS and NCIPC have received feedback from clinicians and researchers with recommendations to improve the consistency and clinical applicability of body-region-by-nature-of-injury categorization. Comments were received from the Navy and Marine Corps Public Health Center, the Army Public Health Center, the Defense Health Agency of the Military Health System, the Agency for Healthcare Research and Quality, several state health departments, researchers, and an international consulting firm.

Additionally, subject matter experts from NCHS, NCIPC, the Council of State and Territorial Epidemiologists, and state and local health departments reviewed code descriptions, coding guidelines, updates to the ICD–10–CM code set, and other materials to identify possible needed changes to the 2016 proposed ICD–10–CM injury diagnosis matrix. Consideration of the issues raised by clinicians and researchers and from the internal review resulted in several modifications to the 2016 proposed ICD–10–CM injury diagnosis matrix to generate the final 2020 ICD–10–CM injury diagnosis matrix.

## Results

The modifications to the 2016 proposed ICD–10–CM injury diagnosis matrix fall into two broad categories: (a) relocations: injury diagnosis codes in the 2016 proposed injury diagnosis matrix that were relocated to a different cell in the 2020 final injury diagnosis matrix, and (b) additions: new injury diagnosis codes that were not included

in the 2016 proposed injury diagnosis matrix but were added to create the 2020 final injury diagnosis matrix. Details on each of these types of modification are provided below.

## Injury diagnosis codes that were relocated

Based on input from users of the 2016 proposed ICD–10–CM injury diagnosis matrix, several codes were relocated to a different body-region-by-nature-of-injury cell of the matrix (Table I). In summary, these included:

- *Codes for subluxations and dislocations of the sternoclavicular joint.* In the 2016 proposed ICD–10–CM injury diagnosis matrix, these codes were placed in the body region of Torso/Chest (thorax) for consistency with the ICD–9–CM injury diagnosis matrix for morbidity. However, in the ICD–10 injury diagnosis matrix for mortality, these codes were included in the body region Extremities/Upper extremity. For consistency with the ICD–10 injury diagnosis matrix and because injuries to the sternoclavicular joint could result in limitations in functioning of the shoulder, a decision was made to move the codes S43.201–S43.226 (subluxations and dislocations of the sternoclavicular joint) and S43.60–S43.62 and S23.420 (sprains of the sternoclavicular joint) from the body region Torso/Chest (thorax) to Extremities/Upper extremity/Shoulder and upper arm.
- *Codes for lacerations of muscle, fascia, and tendons.* In the 2016 proposed ICD–10–CM injury diagnosis matrix, these types of injuries were assigned to the nature-of-injury category of Other specified injury/Injury to muscles and tendons. Because these types of injuries would most likely only result from an open wound, a decision was made to move these codes to the nature-of-injury category of Open wound.
- *Codes for traumatic rupture of ligaments.* In the 2016 proposed ICD–10–CM injury diagnosis matrix, these types of injuries were

assigned to the nature-of-injury category of Other specified injury/Injury to muscles and tendons. Because ligaments provide supporting structure around a joint and do not involve muscles or tendons, a decision was made to move these codes to the nature-of-injury category of Other specified injury/Strains and sprains.

- *Codes for tear of the meniscus.* In the 2016 proposed ICD–10–CM injury diagnosis matrix, these types of injuries were assigned to the nature-of-injury category of Other specified injury/Injury to muscles and tendons. Because the meniscus is located within a joint, a tear of the meniscus would not involve injury to muscles and tendons but would more likely involve sprain or strain of ligaments and cartilage. For this reason, a decision was made to move these codes to the nature-of-injury category of Other specified injury/Strains and sprains.
- *Codes for tear of articular cartilage.* In the 2016 proposed ICD–10–CM injury diagnosis matrix, these types of injuries were assigned to the nature-of-injury category of Other specified injury/Injury to muscles and tendons. Because the articular cartilage is located within a joint, a tear would not involve injury to muscles and tendons but would more likely involve sprain or strain. A decision was made to move these codes to the nature-of-injury

category of Other specified injury/Strains and sprains.

The codes that were relocated represent approximately 3% of the 9,000 codes included in the 2016 proposed injury diagnosis matrix. [Table I](#) provides a list of all the codes that were relocated to a different body-region-by-nature-of-injury cell in the final 2020 ICD–10–CM injury diagnosis matrix.

### Injury diagnosis codes that were added

The 2016 proposed ICD–10–CM injury diagnosis matrix included the ICD–10–CM codes identified in a proposed surveillance case definition for injury hospitalizations and emergency department visits that was published in 2017 ([Table A](#)) (7). In 2019, an updated surveillance case definition for injury hospitalizations that included several additional codes was published ([Table B](#)) (10). The additional codes in the updated surveillance case definition included:

- O9A.2, O9A.3, O9A.4, and O9A.5: Injury, poisoning and other consequences of external causes complicating pregnancy and childbirth.
- T84.04 and M97: Periprosthetic fracture around an internal prosthetic joint. In the Federal Fiscal Year 2017 version of ICD–10–CM, effective October 1, 2016, T84.04 codes were deleted and replaced by M97 codes (11). Both T84.04 (before October

1, 2016) and M97 (after October 1, 2016) are included in the updated ICD–10–CM surveillance case definition for injury hospitalizations.

For consistency, the additional codes included in the 2019 updated surveillance case definition for injury hospitalizations were also added to the 2020 final ICD–10–CM injury diagnosis matrix.

Additionally, each year, the ICD–10–CM Coordination and Maintenance Committee updates the ICD–10–CM code set, coding guidelines, and associated materials (9). These annual updates have resulted in several additions and deletions to the nature-of-injury codes in the ICD–10–CM code set since the 2016 proposed ICD–10–CM injury diagnosis matrix was developed. To generate the 2020 final ICD–10–CM injury diagnosis matrix, approximately 200 new injury codes were added to the 2016 proposed ICD–10–CM injury diagnosis matrix. The new codes added to the 2016 proposed ICD–10–CM matrix to create the 2020 final ICD–10–CM injury diagnosis matrix are summarized in [Table II](#).

### 2020 final ICD–10–CM injury diagnosis matrix

The changes noted above were used to update the 2016 proposed ICD–10–CM injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix. More than 9,000 injury diagnosis codes are included in the final matrix.

**Table B. International Classification of Diseases, 10th Revision, Clinical Modification nature-of-injury codes included in the 2020 final injury diagnosis matrix**

ICD–10–CM nature-of-injury code	Type of injury
All S codes	Anatomic injuries
T07–T34	Foreign bodies, burns, corrosions, frostbite
T36–T50 with a 6th character of 1, 2, 3, or 4 (exceptions: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9, which are included if they have a 5th character of 1, 2, 3, or 4)	Drug poisoning (excludes adverse effects and underdosing)
T51–T65	Toxic effects of substances nonmedicinal as to source
T66–T76	Other and unspecified effects of external causes (radiation, heat, light, hypo/hyperthermia, asphyxiation, child/adult abuse, lightning, drowning, motion sickness, etc.)
T79	Certain early complications of trauma, not elsewhere classified
O9A.2–O9A.5	Injury, poisoning and certain other consequences of external causes; and physical, sexual and psychological abuse complicating pregnancy, childbirth and the puerperium
T84.04 <sup>1</sup>	Periprosthetic fracture around internal prosthetic joint
M97 <sup>1</sup>	Periprosthetic fracture around internal prosthetic joint

<sup>1</sup>T84.04 was retired and replaced by M97 in the Federal Fiscal Year 2017 version of ICD–10–CM, which went into effect on October 1, 2016.

NOTE: ICD–10–CM is the *International Classification of Diseases, 10th Revision, Clinical Modification*.

SOURCES: National Center for Health Statistics and National Center for Injury Prevention and Control.

A spreadsheet showing the placement of each individual injury diagnosis code into a body-region-by-nature-of-injury cell in the matrix is available at the NCHS Injury Data and Resources, Tools and Frameworks website ([https://www.cdc.gov/nchs/injury/injury\\_tools.htm](https://www.cdc.gov/nchs/injury/injury_tools.htm)) in the ICD–10–CM section under Injury Diagnosis Matrices. Because of the complexities, nuances, and yearly updates to the ICD–10–CM code set and injury diagnosis matrix, any analysis using the 2020 final ICD–10–CM injury diagnosis matrix should rely on the spreadsheet and SAS formats available at the NCHS Injury Data and Resources website to ensure that all injury diagnosis codes are included and that individual codes are appropriately grouped by body region and nature of injury.

## Discussion

This report summarizes the modifications made to the 2016 proposed ICD–10–CM injury diagnosis matrix, based on feedback from clinicians, researchers, and other users, to create the 2020 final ICD–10–CM injury diagnosis matrix. Overall, only a small percentage of codes (approximately 3%) were relocated to a different cell in the body-region-by-nature-of-injury framework. Most of these relocations involved reassignment of certain injuries from the nature-of-injury category of Other specified injury/Injury to muscle and tendon to either Other specified injury/Strain and sprain or to Other specified injury/Open wound. Only one set of codes, those for injuries to the sternoclavicular joint, were relocated to a different body region (from Torso/Chest [thorax] to Extremities/Upper extremity/Shoulder and upper arm). Additionally, approximately 200 new codes (i.e., ICD–10–CM codes that did not exist at the time the 2016 proposed ICD–10–CM injury diagnosis matrix was developed) were added.

Users should be aware that while the majority of ICD–10–CM codes in the 2020 final ICD–10–CM injury diagnosis matrix for morbidity are located in a body-region-by-nature-of-injury cell that is comparable with where related ICD–10 codes are located in the ICD–10 injury diagnosis matrix for mortality, there

are some exceptions. These differences generally result from greater specificity or additional detail in the ICD–10–CM code compared with the ICD–10 code, or from the clinical implications and differences between morbidity and mortality data. For example, while it is reasonable to assign S01, Open wound of the head to the Head and neck/Traumatic brain injury body region of the ICD–10 injury diagnosis matrix for mortality (because of how the code is used in mortality data) (6), it is not clinically justifiable to include it as a traumatic brain injury in the ICD–10–CM injury diagnosis matrix. In the 2020 final ICD–10–CM injury diagnosis matrix, the S01 codes are assigned to Head and neck/Other head, face, and neck/Other head. The differences in code placement in the ICD–10 matrix and the 2020 final ICD–10–CM injury diagnosis matrix should be considered when making comparisons between the number of deaths identified using data coded in ICD–10 and the number of nonfatal injuries (e.g., hospitalizations or emergency department visits) identified using data coded in ICD–10–CM for certain injury diagnoses. A spreadsheet listing the approximately 685 codes for which the location of the ICD–10–CM code in the 2020 final ICD–10–CM injury diagnosis matrix differs from where similar ICD–10 codes are located in the ICD–10 matrix is available at the NCHS Injury Data and Resources, Tools and Frameworks website ([https://www.cdc.gov/nchs/injury/injury\\_tools.htm](https://www.cdc.gov/nchs/injury/injury_tools.htm)) in the ICD–10–CM section under Injury Diagnosis Matrices.

When analyzing both ICD–9–CM and ICD–10–CM-coded morbidity data, researchers should exercise caution when interpreting the results from any trend analysis that crosses the transition from the use of ICD–9–CM to the use of ICD–10–CM that occurred on October 1, 2015 (12). There are major differences between the ICD–9–CM and ICD–10–CM code sets and coding guidelines that should be considered (4,5,13,14). Differences between ICD–9–CM and ICD–10–CM codes used for injury surveillance have been described in detail elsewhere (15). Because of the substantial differences between ICD–9–CM and ICD–10–CM,

both in terms of the injury diagnosis codes and the corresponding injury diagnosis matrices, trend analysis using ICD–9–CM-coded data for some years and ICD–10–CM-coded data for other years is not recommended without significant additional analyses and a clear understanding of possible coding issues that might contribute to the trends observed.

The purpose of the 2020 final ICD–10–CM injury diagnosis matrix is to group ICD–10–CM codes into broad body-region and nature-of-injury categories in a way that is consistent with previous ICD-based tools for public health surveillance of injury diagnoses. Users of the matrix should recognize that, despite the labels used for the body-region and nature-of-injury categories, the code groups are not necessarily meant to imply a “case definition.” For example, researchers who are interested in studying pelvic fractures may need to develop a specific case definition that better meets their needs rather than simply using the codes assigned to the Torso/Pelvis/Pelvic girdle/Fracture cell of the injury diagnosis matrix. In the 2020 final ICD–10–CM injury diagnosis matrix, codes related to sacral and coccygeal fractures are included in the body region of Spine and back/Vertebral column injury (VCI)/Sacral and coccygeal injury rather than in Torso/Pelvis/Pelvic girdle where other pelvic fractures are located. Therefore, using only the codes in the Torso/Pelvis/Pelvic girdle/Fracture cell of the matrix might not include all pelvic fractures of interest. Similarly, for researchers interested in traumatic brain injury, there are differing opinions about whether the code S09.90, Unspecified injury of head should be used to identify morbidity cases of traumatic brain injury (16). In the 2020 final ICD–10–CM injury diagnosis matrix, the code S09.90 is assigned to Head and neck/Other head, face, and neck/Other head and not to the body region of Head and neck/Traumatic brain injury. This is consistent with the location of the GEMs-equivalent ICD–9–CM code 959.01, Head injury unspecified in the ICD–9–CM injury diagnosis matrix. Depending on the data set used and the purpose of the research project, a researcher might opt to include S09.90 or other codes in addition to

those in the Head and neck/Traumatic brain injury body region of the 2020 final ICD–10–CM injury diagnosis matrix when developing a study case definition for traumatic brain injury morbidity. In general, users should consider the code groupings in the matrix as a potential starting place in the development of a case definition, then modify as needed based on the purpose of the research study and the sensitivity and specificity of the proposed case definition in identifying cases of interest in the data set being analyzed.

Finally, while the 2020 final ICD–10–CM injury diagnosis matrix was designed to be consistent with other tools developed by NCHS and NCIPC, it is important to recognize that other categorization schemas have been developed. One such schema is the Taxonomy of Injuries for Public Health Monitoring and Reporting developed by the Army Public Health Center (17). Users should recognize that other categorization schemas exist and consider whether those schemas might better meet their needs or better reflect the clinical setting in which their data were collected.

In using the 2020 final ICD–10–CM injury diagnosis matrix, researchers and epidemiologists should consider that:

- Each year, NCHS and CMS update the ICD–10–CM code set to add or delete codes, revise descriptions, modify notes on inclusion and exclusion, and make other adjustments as needed. Because the ICD–10–CM code set is updated annually, the ICD–10–CM injury diagnosis matrix will continually require updating to address any relevant changes to the ICD–10–CM code set. Spreadsheets found at the NCHS Injury Data and Resources, Tools and Frameworks website ([https://www.cdc.gov/nchs/injury/injury\\_tools.htm](https://www.cdc.gov/nchs/injury/injury_tools.htm)) will provide the latest version of the ICD–10–CM injury diagnosis matrix.
- The performance of the 2020 final ICD–10–CM injury diagnosis matrix should continue to be monitored and the matrix adjusted, if needed.

## Conclusion

The 2020 final ICD–10–CM injury diagnosis matrix provides standard groupings for reporting injuries by body region and nature of injury when analyzing ICD–10–CM-coded data. Use of this tool by injury epidemiologists and researchers will promote consistency, allowing comparison across different study populations and over time.

## References

1. Barell V, Aharonson-Daniel L, Fingerhut LA, Mackenzie EJ, Ziv A, Boyko V, et al. An introduction to the Barell body region by nature of injury diagnosis matrix. *Inj Prev* 8(2):91–6. 2002. Available from: <https://injuryprevention.bmj.com/content/injuryprev/8/2/91.full.pdf>.
2. Fingerhut LA, Warner M. The ICD–10 injury mortality diagnosis matrix. *Inj Prev* 12(1):24–9. 2006. Available from: <https://injuryprevention.bmj.com/content/injuryprev/12/1/24.full.pdf>.
3. World Health Organization. International classification of diseases, 10th revision (ICD–10). 2016. Available from: <https://icd.who.int/browse10/2019/en>.
4. National Center for Health Statistics. International classification of diseases, ninth revision, clinical modification (ICD–9–CM). Hyattsville, MD. 2015. Available from: <https://www.cdc.gov/nchs/icd/icd9cm.htm>.
5. National Center for Health Statistics. International classification of diseases, 10th revision, clinical modification (ICD–10–CM). Hyattsville, MD. 2020. Available from: <https://www.cdc.gov/nchs/icd/icd10cm.htm>.
6. Hedegaard H, Johnson RL, Warner M, Chen L-H, Anest JL. Proposed framework for presenting injury data using the International Classification of Diseases, 10th Revision, Clinical Modification diagnosis codes. *National Health Statistics Reports*; no 89. Hyattsville, MD: National Center for Health Statistics. 2016. Available from: <https://www.cdc.gov/nchs/data/nhsr/nhsr089.pdf>.
7. Hedegaard HB, Johnson RL, Ballesteros MF. Proposed ICD–10–CM surveillance case definitions for injury hospitalizations and emergency department visits. *National Health Statistics Reports*; no 100. Hyattsville, MD: National Center for Health Statistics. 2017. Available from: <https://www.cdc.gov/nchs/data/nhsr/NHSR100.pdf>.
8. Centers for Medicare & Medicaid Services. General equivalence mappings: ICD–9–CM to and from ICD–10–CM and ICD–10–PCS. 2009. Available from: [https://www.cms.gov/Medicare/Coding/ICD10/Downloads/ICD-10\\_GEM\\_fact\\_sheet.pdf](https://www.cms.gov/Medicare/Coding/ICD10/Downloads/ICD-10_GEM_fact_sheet.pdf).
9. Centers for Medicare & Medicaid Services, National Center for Health Statistics. ICD–10 Coordination and Maintenance Committee. Available from: <https://www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/meetings.html>.
10. Hedegaard H, Johnson RL. An updated International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM) surveillance case definition for injury hospitalizations. *National Health Statistics Reports*; no 125. Hyattsville, MD: National Center for Health Statistics. 2019. Available from: <https://www.cdc.gov/nchs/data/nhsr/nhsr125-508.pdf>.
11. Centers for Disease Control and Prevention. ICD–10–CM Coordination and Maintenance Committee meeting, Diagnosis agenda. 13–15. September 18–19, 2013. Available from: [https://www.cdc.gov/nchs/data/icd/icd\\_topic\\_packet\\_sept\\_181913.pdf](https://www.cdc.gov/nchs/data/icd/icd_topic_packet_sept_181913.pdf).
12. Inscore MC, Gonzales KR, Rennix CP, Jones BH. The effect of transitioning to ICD–10–CM on acute injury surveillance of active duty service members. *Inj Epidemiol* 5(1):32. 2018. Available from: <https://link.springer.com/article/10.1186/s40621-018-0162-y>.
13. Centers for Medicare & Medicaid Services, National Center for Health Statistics. ICD–9–CM official guidelines for coding and reporting.

2011. Available from: [https://www.cdc.gov/nchs/data/icd/icd9cm\\_guidelines\\_2011.pdf](https://www.cdc.gov/nchs/data/icd/icd9cm_guidelines_2011.pdf).
14. Centers for Medicare & Medicaid Services, National Center for Health Statistics. ICD–10–CM official guidelines for coding and reporting. 2016. Available from: [https://www.cdc.gov/nchs/data/icd/10cmguidelines\\_2016\\_final.pdf](https://www.cdc.gov/nchs/data/icd/10cmguidelines_2016_final.pdf).
15. Injury Surveillance Workgroup 9. The transition from ICD–9–CM to ICD–10–CM: Guidance for analysis and reporting of injuries by mechanism and intent. Safe States Alliance. Atlanta, GA. 2016. Available from: [https://cdn.ymaws.com/www.safestates.org/resource/resmgr/isw9/ISW9\\_FINAL\\_Report.pdf](https://cdn.ymaws.com/www.safestates.org/resource/resmgr/isw9/ISW9_FINAL_Report.pdf).
16. Chan V, Thurairajah P, Colantonio A. Defining pediatric traumatic brain injury using International Classification of Diseases Version 10 Codes: A systematic review. *BMC Neurol* 15:7. 2015. Available from: <https://bmneurol.biomedcentral.com/track/pdf/10.1186/s12883-015-0259-7>.
17. Hauschild V, Hauret K, Richardson M, Jones BH, Lee T. A taxonomy of injuries for public health monitoring and reporting. Public Health Information Paper (PHIP) No. 12–01–0717. 2017.

## Technical Notes

**Modifications made to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification* (ICD–10–CM) injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020**

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S09.12X	Laceration of muscle and tendon of head	Head and neck/Other head, face, and neck/Other head	Other specified injury/Muscles and tendons	Head and neck/Other head, face, and neck/Other head	Open wound
S12.8XX	Fracture of other parts of neck	Head and neck/Other head, face, and neck/Neck	Fracture	Spine and back/Vertebral column (VCI)/Cervical VCI	Fracture
S16.1XX	Strain of muscle, fascia and tendon at neck level	Head and neck/Other head, face, and neck/Neck	Other specified injury/Sprains and strains	Spine and back/Vertebral column (VCI)/Cervical VCI	Other specified injury/Sprains and strains
S16.2XX	Laceration of muscle, fascia and tendon at neck level	Head and neck/Other head, face, and neck/Neck	Other specified injury/Muscles and tendons	Head and neck/Other head, face, and neck/Neck	Open wound
S23.420	Sprain of sternoclavicular (joint) (ligament)	Torso/Chest (thorax)	Other specified injury/Sprains and strains	Extremities/Upper extremity/Shoulder and upper arm	Other specified injury/Sprains and strains
S29.021	Laceration of muscle and tendon of front wall of thorax	Torso/Chest (thorax)	Other specified injury/Muscles and tendons	Torso/Chest (thorax)	Open wound
S29.022	Laceration of muscle and tendon of back wall of thorax	Torso/Chest (thorax)	Other specified injury/Muscles and tendons	Torso/Chest (thorax)	Open wound
S29.029	Laceration of muscle and tendon of unspecified wall of thorax	Torso/Chest (thorax)	Other specified injury/Muscles and tendons	Torso/Chest (thorax)	Open wound
S39.021	Laceration of muscle, fascia and tendon of abdomen	Torso/Abdomen	Other specified injury/Muscles and tendons	Torso/Abdomen	Open wound
S39.022	Laceration of muscle, fascia and tendon of lower back	Torso/Pelvis/Lower back and pelvis	Other specified injury/Muscles and tendons	Torso/Pelvis/Lower back and pelvis	Open wound
S39.023	Laceration of muscle, fascia and tendon of pelvis	Torso/Pelvis/Lower back and pelvis	Other specified injury/Muscles and tendons	Torso/Pelvis/Lower back and pelvis	Open wound
S43.201	Unspecified subluxation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.202	Unspecified subluxation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.203	Unspecified subluxation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.204	Unspecified dislocation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.205	Unspecified dislocation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.206	Unspecified dislocation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.211	Anterior subluxation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.212	Anterior subluxation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.213	Anterior subluxation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.214	Anterior dislocation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.215	Anterior dislocation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.216	Anterior dislocation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.221	Posterior subluxation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.222	Posterior subluxation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation
S43.223	Posterior subluxation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/Shoulder and upper arm	Dislocation

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM) injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.***

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S43.224	Posterior dislocation of right sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/ Shoulder and upper arm	Dislocation
S43.225	Posterior dislocation of left sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/ Shoulder and upper arm	Dislocation
S43.226	Posterior dislocation of unspecified sternoclavicular joint	Torso/Chest (thorax)	Dislocation	Extremities/Upper extremity/ Shoulder and upper arm	Dislocation
S46.021	Laceration of muscle(s) and tendon(s) of the rotator cuff of right shoulder	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.022	Laceration of muscle(s) and tendon(s) of the rotator cuff of left shoulder	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.029	Laceration of muscle(s) and tendon(s) of the rotator cuff of unspecified shoulder	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.121	Laceration of muscle, fascia and tendon of long head of biceps, right arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.122	Laceration of muscle, fascia and tendon of long head of biceps, left arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.129	Laceration of muscle, fascia and tendon of long head of biceps, unspecified arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.221	Laceration of muscle, fascia and tendon of other parts of biceps, right arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.222	Laceration of muscle, fascia and tendon of other parts of biceps, left arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.229	Laceration of muscle, fascia and tendon of other parts of biceps, unspecified arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.321	Laceration of muscle, fascia and tendon of triceps, right arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.322	Laceration of muscle, fascia and tendon of triceps, left arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.329	Laceration of muscle, fascia and tendon of triceps, unspecified arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.821	Laceration of other muscles, fascia and tendons at shoulder and upper arm level, right arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.822	Laceration of other muscles, fascia and tendons at shoulder and upper arm level, left arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.829	Laceration of other muscles, fascia and tendons at shoulder and upper arm level, unspecified arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.921	Laceration of unspecified muscle, fascia and tendon at shoulder and upper arm level, right arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.922	Laceration of unspecified muscle, fascia and tendon at shoulder and upper arm level, left arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S46.929	Laceration of unspecified muscle, fascia and tendon at shoulder and upper arm level, unspecified arm	Extremities/Upper extremity/ Shoulder and upper arm	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Shoulder and upper arm	Open wound
S53.20X	Traumatic rupture of unspecified radial collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains
S53.21X	Traumatic rupture of right radial collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains
S53.22X	Traumatic rupture of left radial collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains
S53.30X	Traumatic rupture of unspecified ulnar collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains
S53.31X	Traumatic rupture of right ulnar collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains
S53.32X	Traumatic rupture of left ulnar collateral ligament	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Sprains and strains

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S56.021	Laceration of flexor muscle, fascia and tendon of right thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.022	Laceration of flexor muscle, fascia and tendon of left thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.029	Laceration of flexor muscle, fascia and tendon of unspecified thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.121	Laceration of flexor muscle, fascia and tendon of right index finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.122	Laceration of flexor muscle, fascia and tendon of left index finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.123	Laceration of flexor muscle, fascia and tendon of right middle finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.124	Laceration of flexor muscle, fascia and tendon of left middle finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.125	Laceration of flexor muscle, fascia and tendon of right ring finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.126	Laceration of flexor muscle, fascia and tendon of left ring finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.127	Laceration of flexor muscle, fascia and tendon of right little finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.128	Laceration of flexor muscle, fascia and tendon of left little finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.129	Laceration of flexor muscle, fascia and tendon of unspecified finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.221	Laceration of other flexor muscle, fascia and tendon at forearm level, right arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.222	Laceration of other flexor muscle, fascia and tendon at forearm level, left arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.229	Laceration of other flexor muscle, fascia and tendon at forearm level, unspecified arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.321	Laceration of extensor or abductor muscles, fascia and tendons of right thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.322	Laceration of extensor or abductor muscles, fascia and tendons of left thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.329	Laceration of extensor or abductor muscles, fascia and tendons of unspecified thumb at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.421	Laceration of extensor muscle, fascia and tendon of right index finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.422	Laceration of extensor muscle, fascia and tendon of left index finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.423	Laceration of extensor muscle, fascia and tendon of right middle finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.424	Laceration of extensor muscle, fascia and tendon of left middle finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.425	Laceration of extensor muscle, fascia and tendon of right ring finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.426	Laceration of extensor muscle, fascia and tendon of left ring finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.427	Laceration of extensor muscle, fascia and tendon of right little finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.428	Laceration of extensor muscle, fascia and tendon of left little finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S56.429	Laceration of extensor muscle, fascia and tendon of unspecified finger at forearm level	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.521	Laceration of other extensor muscle, fascia and tendon at forearm level, right arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.522	Laceration of other extensor muscle, fascia and tendon at forearm level, left arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.529	Laceration of other extensor muscle, fascia and tendon at forearm level, unspecified arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.821	Laceration of other muscles, fascia and tendons at forearm level, right arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.822	Laceration of other muscles, fascia and tendons at forearm level, left arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.829	Laceration of other muscles, fascia and tendons at forearm level, unspecified arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.921	Laceration of unspecified muscles, fascia and tendons at forearm level, right arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.922	Laceration of unspecified muscles, fascia and tendons at forearm level, left arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S56.929	Laceration of unspecified muscles, fascia and tendons at forearm level, unspecified arm	Extremities/Upper extremity/ Forearm and elbow	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Forearm and elbow	Open wound
S63.301	Traumatic rupture of unspecified ligament of right wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.302	Traumatic rupture of unspecified ligament of left wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.309	Traumatic rupture of unspecified ligament of unspecified wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.311	Traumatic rupture of collateral ligament of right wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.312	Traumatic rupture of collateral ligament of left wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.319	Traumatic rupture of collateral ligament of unspecified wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.321	Traumatic rupture of right radiocarpal ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.322	Traumatic rupture of left radiocarpal ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.329	Traumatic rupture of unspecified radiocarpal ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.331	Traumatic rupture of right ulnocarpal (palmar) ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.332	Traumatic rupture of left ulnocarpal (palmar) ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.339	Traumatic rupture of unspecified ulnocarpal (palmar) ligament	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.391	Traumatic rupture of other ligament of right wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.392	Traumatic rupture of other ligament of left wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.399	Traumatic rupture of other ligament of unspecified wrist	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.400	Traumatic rupture of unspecified ligament of right index finger at metacarpophalangeal and interphalangeal joint	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains
S63.401	Traumatic rupture of unspecified ligament of left index finger at metacarpophalangeal and interphalangeal joint	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Strains and sprains







**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S66.524	Laceration of intrinsic muscle, fascia and tendon of right ring finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.525	Laceration of intrinsic muscle, fascia and tendon of left ring finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.526	Laceration of intrinsic muscle, fascia and tendon of right little finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.527	Laceration of intrinsic muscle, fascia and tendon of left little finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.528	Laceration of intrinsic muscle, fascia and tendon of other finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.529	Laceration of intrinsic muscle, fascia and tendon of unspecified finger at wrist and hand level	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.821	Laceration of other specified muscles, fascia and tendons at wrist and hand level, right hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.822	Laceration of other specified muscles, fascia and tendons at wrist and hand level, left hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.829	Laceration of other specified muscles, fascia and tendons at wrist and hand level, unspecified hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.921	Laceration of unspecified muscle, fascia and tendon at wrist and hand level, right hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.922	Laceration of unspecified muscle, fascia and tendon at wrist and hand level, left hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S66.929	Laceration of unspecified muscle, fascia and tendon at wrist and hand level, unspecified hand	Extremities/Upper extremity/ Wrist, hand, and fingers	Other specified injury/Muscles and tendons	Extremities/Upper extremity/ Wrist, hand, and fingers	Open wound
S76.021	Laceration of muscle, fascia and tendon of right hip	Extremities/Lower extremity/Hip	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Hip	Open wound
S76.022	Laceration of muscle, fascia and tendon of left hip	Extremities/Lower extremity/Hip	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Hip	Open wound
S76.029	Laceration of muscle, fascia and tendon of unspecified hip	Extremities/Lower extremity/Hip	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Hip	Open wound
S76.121	Laceration of right quadriceps muscle, fascia and tendon	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.122	Laceration of left quadriceps muscle, fascia and tendon	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.129	Laceration of unspecified quadriceps muscle, fascia and tendon	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.221	Laceration of adductor muscle, fascia and tendon of right thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.222	Laceration of adductor muscle, fascia and tendon of left thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.229	Laceration of adductor muscle, fascia and tendon of unspecified thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.321	Laceration of muscle, fascia and tendon of the posterior muscle group at thigh level, right thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.322	Laceration of muscle, fascia and tendon of the posterior muscle group at thigh level, left thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.329	Laceration of muscle, fascia and tendon of the posterior muscle group at thigh level, unspecified thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.821	Laceration of other specified muscles, fascia and tendons at thigh level, right thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.822	Laceration of other specified muscles, fascia and tendons at thigh level, left thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.829	Laceration of other specified muscles, fascia and tendons at thigh level, unspecified thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S76.921	Laceration of unspecified muscles, fascia and tendons at thigh level, right thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.922	Laceration of unspecified muscles, fascia and tendons at thigh level, left thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S76.929	Laceration of unspecified muscles, fascia and tendons at thigh level, unspecified thigh	Extremities/Lower extremity/ Upper leg and thigh	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Upper leg and thigh	Open wound
S83.200	Bucket-handle tear of unspecified meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.201	Bucket-handle tear of unspecified meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.202	Bucket-handle tear of unspecified meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.203	Other tear of unspecified meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.204	Other tear of unspecified meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.205	Other tear of unspecified meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.206	Unspecified tear of unspecified meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.207	Unspecified tear of unspecified meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.209	Unspecified tear of unspecified meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.211	Bucket-handle tear of medial meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.212	Bucket-handle tear of medial meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.219	Bucket-handle tear of medial meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.221	Peripheral tear of medial meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.222	Peripheral tear of medial meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.229	Peripheral tear of medial meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.231	Complex tear of medial meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.232	Complex tear of medial meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.239	Complex tear of medial meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.241	Other tear of medial meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.242	Other tear of medial meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.249	Other tear of medial meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.251	Bucket-handle tear of lateral meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.252	Bucket-handle tear of lateral meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.259	Bucket-handle tear of lateral meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S83.261	Peripheral tear of lateral meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.262	Peripheral tear of lateral meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.269	Peripheral tear of lateral meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.271	Complex tear of lateral meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.272	Complex tear of lateral meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.279	Complex tear of lateral meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.281	Other tear of lateral meniscus, current injury, right knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.282	Other tear of lateral meniscus, current injury, left knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.289	Other tear of lateral meniscus, current injury, unspecified knee	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.30X	Tear of articular cartilage of unspecified knee, current	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.31X	Tear of articular cartilage of right knee, current	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S83.32X	Tear of articular cartilage of left knee, current	Extremities/Lower extremity/Knee	Other specified injury/Muscles and tendons	Extremities/Lower extremity/Knee	Other specified injury/Sprains and strains
S86.021	Laceration of right Achilles tendon	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.022	Laceration of left Achilles tendon	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.029	Laceration of unspecified Achilles tendon	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.121	Laceration of other muscle(s) and tendon(s) of posterior muscle group at lower leg level, right leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.122	Laceration of other muscle(s) and tendon(s) of posterior muscle group at lower leg level, left leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.129	Laceration of other muscle(s) and tendon(s) of posterior muscle group at lower leg level, unspecified leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.221	Laceration of muscle(s) and tendon(s) of anterior muscle group at lower leg level, right leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.222	Laceration of muscle(s) and tendon(s) of anterior muscle group at lower leg level, left leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.229	Laceration of muscle(s) and tendon(s) of anterior muscle group at lower leg level, unspecified leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.321	Laceration of muscle(s) and tendon(s) of peroneal muscle group at lower leg level, right leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.322	Laceration of muscle(s) and tendon(s) of peroneal muscle group at lower leg level, left leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.329	Laceration of muscle(s) and tendon(s) of peroneal muscle group at lower leg level, unspecified leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.821	Laceration of other muscle(s) and tendon(s) at lower leg level, right leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.822	Laceration of other muscle(s) and tendon(s) at lower leg level, left leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.829	Laceration of other muscle(s) and tendon(s) at lower leg level, unspecified leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound

**Table I. Changes in the location of *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis codes in the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2016 proposed matrix	Nature-of-injury category in 2016 proposed matrix	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S86.921	Laceration of unspecified muscle(s) and tendon(s) at lower leg level, right leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.922	Laceration of unspecified muscle(s) and tendon(s) at lower leg level, left leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S86.929	Laceration of unspecified muscle(s) and tendon(s) at lower leg level, unspecified leg	Extremities/Lower extremity/ Lower leg and ankle	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Lower leg and ankle	Open wound
S96.021	Laceration of muscle and tendon of long flexor muscle of toe at ankle and foot level, right foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.022	Laceration of muscle and tendon of long flexor muscle of toe at ankle and foot level, left foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.029	Laceration of muscle and tendon of long flexor muscle of toe at ankle and foot level, unspecified foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.121	Laceration of muscle and tendon of long extensor muscle of toe at ankle and foot level, right foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.122	Laceration of muscle and tendon of long extensor muscle of toe at ankle and foot level, left foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.129	Laceration of muscle and tendon of long extensor muscle of toe at ankle and foot level, unspecified foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.221	Laceration of intrinsic muscle and tendon at ankle and foot level, right foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.222	Laceration of intrinsic muscle and tendon at ankle and foot level, left foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.229	Laceration of intrinsic muscle and tendon at ankle and foot level, unspecified foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.821	Laceration of other specified muscles and tendons at ankle and foot level, right foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.822	Laceration of other specified muscles and tendons at ankle and foot level, left foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.829	Laceration of other specified muscles and tendons at ankle and foot level, unspecified foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.921	Laceration of unspecified muscle and tendon at ankle and foot level, right foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.922	Laceration of unspecified muscle and tendon at ankle and foot level, left foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound
S96.929	Laceration of unspecified muscle and tendon at ankle and foot level, unspecified foot	Extremities/Lower extremity/ Ankle and foot	Other specified injury/Muscles and tendons	Extremities/Lower extremity/ Ankle and foot	Open wound

SOURCES: National Center for Health Statistics and National Center for Injury Prevention and Control.

**Table II. Injury diagnosis codes added to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020**

Code	Description	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S02.101	Fracture of base of skull, right side	Head and neck/Traumatic brain injury	Fracture
S02.102	Fracture of base of skull, left side	Head and neck/Traumatic brain injury	Fracture
S02.109	Fracture of base of skull, unspecified side	Head and neck/Traumatic brain injury	Fracture
S02.11A	Type I occipital condyle fracture, right side	Head and neck/Traumatic brain injury	Fracture
S02.11B	Type I occipital condyle fracture, left side	Head and neck/Traumatic brain injury	Fracture
S02.11C	Type II occipital condyle fracture, right side	Head and neck/Traumatic brain injury	Fracture
S02.11D	Type II occipital condyle fracture, left side	Head and neck/Traumatic brain injury	Fracture
S02.11E	Type III occipital condyle fracture, right side	Head and neck/Traumatic brain injury	Fracture
S02.11F	Type III occipital condyle fracture, left side	Head and neck/Traumatic brain injury	Fracture
S02.11G	Other fracture or occiput, right side	Head and neck/Traumatic brain injury	Fracture
S02.11H	Other fracture or occiput, left side	Head and neck/Traumatic brain injury	Fracture
S02.121	Fracture of orbital roof, right side	Head and neck/Traumatic brain injury	Fracture
S02.122	Fracture of orbital roof, left side	Head and neck/Traumatic brain injury	Fracture
S02.129	Fracture of orbital roof, unspecified side	Head and neck/Traumatic brain injury	Fracture
S02.2XX	Fracture of nasal bones	Head and neck/Other head, face, and neck/Face	Fracture
S02.30X	Fracture of orbital floor, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.31X	Fracture of orbital floor, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.32X	Fracture of orbital floor, left side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40A	Malar fracture, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40B	Malar fracture, left side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40C	Maxillary fracture, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40D	Maxillary fracture, left side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40E	Zygomatic fracture, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.40F	Zygomatic fracture, left side	Head and neck/Other head, face, and neck/Face	Fracture
S02.601	Fracture of unspecified part of body of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.602	Fracture of unspecified part of body of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.610	Fracture of condylar process of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.611	Fracture of condylar process of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.612	Fracture of condylar process of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.620	Fracture of subcondylar process of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.621	Fracture of subcondylar process of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.622	Fracture of subcondylar process of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.630	Fracture of coronoid process of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.631	Fracture of coronoid process of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.632	Fracture of coronoid process of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.640	Fracture of ramus of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.641	Fracture of ramus of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.642	Fracture of ramus of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.650	Fracture of angle of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.651	Fracture of angle of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.652	Fracture of angle of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.670	Fracture of alveolus of mandible, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.671	Fracture of alveolus of right mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.672	Fracture of alveolus of left mandible	Head and neck/Other head, face, and neck/Face	Fracture
S02.80X	Fracture of other specified skull and facial bones, unspecified side	Head and neck/Traumatic brain injury	Fracture
S02.81X	Fracture of other specified skull and facial bones, right side	Head and neck/Traumatic brain injury	Fracture
S02.82X	Fracture of other specified skull and facial bones, left side	Head and neck/Traumatic brain injury	Fracture
S02.831	Fracture of medial orbital wall, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.832	Fracture of medial orbital wall, left side	Head and neck/Other head, face, and neck/Face	Fracture
S02.839	Fracture of medial orbital wall, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.841	Fracture of lateral orbital wall, right side	Head and neck/Other head, face, and neck/Face	Fracture
S02.842	Fracture of lateral orbital wall, left side	Head and neck/Other head, face, and neck/Face	Fracture

See footnote at end of table.

**Table II. Injury diagnosis codes added to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S02.849	Fracture of lateral orbital wall, unspecified side	Head and neck/Other head, face, and neck/Face	Fracture
S02.85X	Fracture of orbit, unspecified	Head and neck/Other head, face, and neck/Face	Fracture
S03.00X	Dislocation of jaw, unspecified side	Head and neck/Other head, face, and neck/Face	Dislocation
S03.01X	Dislocation of jaw, right side	Head and neck/Other head, face, and neck/Face	Dislocation
S03.02X	Dislocation of jaw, left side	Head and neck/Other head, face, and neck/Face	Dislocation
S03.03X	Dislocation of jaw, bilateral	Head and neck/Other head, face, and neck/Face	Dislocation
S03.40X	Sprain of jaw, unspecified side	Head and neck/Other head, face, and neck/Face	Other specified injury/Sprains and strains
S03.41X	Sprain of jaw, right side	Head and neck/Other head, face, and neck/Face	Other specified injury/Sprains and strains
S03.42X	Sprain of jaw, left side	Head and neck/Other head, face, and neck/Face	Other specified injury/Sprains and strains
S03.43X	Sprain of jaw, bilateral	Head and neck/Other head, face, and neck/Face	Other specified injury/Sprains and strains
S20.213	Contusion of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.214	Contusion of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.223	Contusion of bilateral back wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.224	Contusion of middle back wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.303	Unspecified superficial injuries of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.304	Unspecified superficial injuries of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.313	Abrasion of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.314	Abrasion of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.323	Blisters (nonthermal) of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.324	Blisters (nonthermal) of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.343	External constriction of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.344	External constriction of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.353	Superficial foreign body of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.354	Superficial foreign body of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.363	Insect bite (nonvenomous) of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.364	Insect bite (nonvenomous) of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.373	Other superficial bite of bilateral front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S20.374	Other superficial bite of middle front wall of thorax	Torso/Chest (thorax)	Superficial and contusion
S92.811	Other fracture of right foot	Extremities/Lower extremity/Foot and toes	Fracture
S92.812	Other fracture of left foot	Extremities/Lower extremity/Foot and toes	Fracture
S92.819	Other fracture of unspecified foot	Extremities/Lower extremity/Foot and toes	Fracture
S99.001	Unspecified physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.002	Unspecified physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.009	Unspecified physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.011	Salter–Harris Type I physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.012	Salter–Harris Type I physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.019	Salter–Harris Type I physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.021	Salter–Harris Type II physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.022	Salter–Harris Type II physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.029	Salter–Harris Type II physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.031	Salter–Harris Type III physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.032	Salter–Harris Type III physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.039	Salter–Harris Type III physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.041	Salter–Harris Type IV physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.042	Salter–Harris Type IV physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.049	Salter–Harris Type IV physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.091	Other physeal fracture of right calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.092	Other physeal fracture of left calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.099	Other physeal fracture of unspecified calcaneus	Extremities/Lower extremity/Foot and toes	Fracture
S99.101	Unspecified physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.102	Unspecified physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.109	Unspecified physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture

See footnote at end of table.

**Table II. Injury diagnosis codes added to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
S99.111	Salter–Harris Type I physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.112	Salter–Harris Type I physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.119	Salter–Harris Type I physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.121	Salter–Harris Type II physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.122	Salter–Harris Type II physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.129	Salter–Harris Type II physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.131	Salter–Harris Type III physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.132	Salter–Harris Type III physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.139	Salter–Harris Type III physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.141	Salter–Harris Type IV physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.142	Salter–Harris Type IV physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.149	Salter–Harris Type IV physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.191	Other physeal fracture of right metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.192	Other physeal fracture of left metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.199	Other physeal fracture of unspecified metatarsal	Extremities/Lower extremity/Foot and toes	Fracture
S99.201	Unspecified physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.202	Unspecified physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.209	Unspecified physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.211	Salter–Harris Type I physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.212	Salter–Harris Type I physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.219	Salter–Harris Type I physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.221	Salter–Harris Type II physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.222	Salter–Harris Type II physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.229	Salter–Harris Type II physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.231	Salter–Harris Type III physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.232	Salter–Harris Type III physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.239	Salter–Harris Type III physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.241	Salter–Harris Type IV physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.242	Salter–Harris Type IV physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.249	Salter–Harris Type IV physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.291	Other physeal fracture of phalanx of right toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.292	Other physeal fracture of phalanx of left toe	Extremities/Lower extremity/Foot and toes	Fracture
S99.299	Other physeal fracture of phalanx of unspecified toe	Extremities/Lower extremity/Foot and toes	Fracture
T24.211	Burn of second degree of right thigh	Extremities/Lower extremity/Upper leg and thigh	Burns and corrosions/Burns
T40.411	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional)	Unclassifiable by body region/Systemwide	Poisoning
T40.412	Poisoning by fentanyl or fentanyl analogs, intentional self-harm	Unclassifiable by body region/Systemwide	Poisoning
T40.413	Poisoning by fentanyl or fentanyl analogs, assault	Unclassifiable by body region/Systemwide	Poisoning
T40.414	Poisoning by fentanyl or fentanyl analogs, undetermined	Unclassifiable by body region/Systemwide	Poisoning
T40.421	Poisoning by tramadol, accidental (unintentional)	Unclassifiable by body region/Systemwide	Poisoning
T40.422	Poisoning by tramadol, intentional self-harm	Unclassifiable by body region/Systemwide	Poisoning
T40.423	Poisoning by tramadol, assault	Unclassifiable by body region/Systemwide	Poisoning
T40.424	Poisoning by tramadol, undetermined	Unclassifiable by body region/Systemwide	Poisoning
T40.491	Poisoning by other synthetic narcotics, accidental (unintentional)	Unclassifiable by body region/Systemwide	Poisoning
T40.492	Poisoning by other synthetic narcotics, intentional self-harm	Unclassifiable by body region/Systemwide	Poisoning
T40.493	Poisoning by other synthetic narcotics, assault	Unclassifiable by body region/Systemwide	Poisoning
T40.494	Poisoning by other synthetic narcotics, undetermined	Unclassifiable by body region/Systemwide	Poisoning
T43.641	Poisoning by ecstasy, accidental (unintentional)	Unclassifiable by body region/Systemwide	Poisoning
T43.642	Poisoning by ecstasy, intentional self-harm	Unclassifiable by body region/Systemwide	Poisoning
T43.643	Poisoning by ecstasy, assault	Unclassifiable by body region/Systemwide	Poisoning
T43.644	Poisoning by ecstasy, undetermined	Unclassifiable by body region/Systemwide	Poisoning

See footnote at end of table.

**Table II. Injury diagnosis codes added to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
T50.911	Poisoning by multiple unspecified drugs, medicaments and biological substances, accidental (unintentional)	Unclassifiable by body region/Systemwide	Poisoning
T50.912	Poisoning by multiple unspecified drugs, medicaments and biological substances, intentional self-harm	Unclassifiable by body region/Systemwide	Poisoning
T50.913	Poisoning by multiple unspecified drugs, medicaments and biological substances, assault	Unclassifiable by body region/Systemwide	Poisoning
T50.914	Poisoning by multiple unspecified drugs, medicaments and biological substances, undetermined	Unclassifiable by body region/Systemwide	Poisoning
T67.01X	Heatstroke and sunstroke	Unclassifiable by body region/Systemwide	Other effects of external causes
T67.02X	Exertional heatstroke	Unclassifiable by body region/Systemwide	Other effects of external causes
T67.09X	Other heatstroke and sunstroke	Unclassifiable by body region/Systemwide	Other effects of external causes
T74.51X	Adult forced sexual exploitation, confirmed	Unclassifiable by body region/Systemwide	Other effects of external causes
T74.52X	Child sexual exploitation, confirmed	Unclassifiable by body region/Systemwide	Other effects of external causes
T74.61X	Adult forced labor exploitation, confirmed	Unclassifiable by body region/Systemwide	Other effects of external causes
T74.62X	Child forced labor exploitation, confirmed	Unclassifiable by body region/Systemwide	Other effects of external causes
T76.51X	Adult forced sexual exploitation, suspected	Unclassifiable by body region/Systemwide	Other effects of external causes
T76.52X	Child sexual exploitation, suspected	Unclassifiable by body region/Systemwide	Other effects of external causes
T76.61X	Adult forced labor exploitation, suspected	Unclassifiable by body region/Systemwide	Other effects of external causes
T76.62X	Child forced labor exploitation, suspected	Unclassifiable by body region/Systemwide	Other effects of external causes
T79.A0X	Compartment syndrome unspecified	Unclassifiable by body region/Systemwide	Other specified injury/Other injury
O9A.211	Injury, poisoning and certain other consequences of external causes complicating pregnancy, first trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.212	Injury, poisoning and certain other consequences of external causes complicating pregnancy, second trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.213	Injury, poisoning and certain other consequences of external causes complicating pregnancy, third trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.219	Injury, poisoning and certain other consequences of external causes complicating pregnancy, unspecified trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.22	Injury, poisoning and certain other consequences of external causes complicating childbirth	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.23	Injury, poisoning and certain other consequences of external causes complicating the puerperium	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.311	Physical abuse complicating pregnancy, first trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.312	Physical abuse complicating pregnancy, second trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.313	Physical abuse complicating pregnancy, third trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.319	Physical abuse complicating pregnancy, unspecified trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.32	Physical abuse complicating childbirth	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.33	Physical abuse complicating the puerperium	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.411	Sexual abuse complicating pregnancy, first trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.412	Sexual abuse complicating pregnancy, second trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.413	Sexual abuse complicating pregnancy, third trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.419	Sexual abuse complicating pregnancy, unspecified trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.42	Sexual abuse complicating childbirth	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.43	Sexual abuse complicating the puerperium	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.511	Psychological abuse complicating pregnancy, first trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.512	Psychological abuse complicating pregnancy, second trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.513	Psychological abuse complicating pregnancy, third trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.519	Psychological abuse complicating pregnancy, unspecified trimester	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.52	Psychological abuse complicating childbirth	Unclassifiable by body region/Systemwide	Other effects of external causes
O9A.53	Psychological abuse complicating the puerperium	Unclassifiable by body region/Systemwide	Other effects of external causes
T84.040	Periprosthetic fracture around internal prosthetic right hip joint	Extremity/Lower extremity/Hip	Fracture
T84.041	Periprosthetic fracture around internal prosthetic left hip joint	Extremity/Lower extremity/Hip	Fracture
T84.042	Periprosthetic fracture around internal prosthetic right knee joint	Extremity/Lower extremity/Knee	Fracture
T84.043	Periprosthetic fracture around internal prosthetic left knee joint	Extremity/Lower extremity/Knee	Fracture
T84.048	Periprosthetic fracture around other internal prosthetic joint	Extremity/Lower extremity/Other, multiple, and unspecified <sup>1</sup>	Fracture

See footnote at end of table.

**Table II. Injury diagnosis codes added to the 2016 proposed *International Classification of Diseases, 10th Revision, Clinical Modification (ICD–10–CM)* injury diagnosis matrix to create the 2020 final ICD–10–CM injury diagnosis matrix, as of October 1, 2020—Con.**

Code	Description	Body region category in 2020 final matrix	Nature-of-injury category in 2020 final matrix
T84.049	Periprosthetic fracture around unspecified internal prosthetic joint	Extremity/Lower extremity/Other, multiple, and unspecified <sup>1</sup>	Fracture
M97.01X	Periprosthetic fracture around internal prosthetic right hip joint	Extremity/Lower extremity/Hip	Fracture
M97.02X	Periprosthetic fracture around internal prosthetic left hip joint	Extremity/Lower extremity/Hip	Fracture
M97.11X	Periprosthetic fracture around internal prosthetic right knee joint	Extremity/Lower extremity/Knee	Fracture
M97.12X	Periprosthetic fracture around internal prosthetic left knee joint	Extremity/Lower extremity/Knee	Fracture
M97.21X	Periprosthetic fracture around internal prosthetic right ankle joint	Extremity/Lower extremity/Lower leg and ankle	Fracture
M97.22X	Periprosthetic fracture around internal prosthetic left ankle joint	Extremity/Lower extremity/Lower leg and ankle	Fracture
M97.31X	Periprosthetic fracture around internal prosthetic right shoulder joint	Extremity/Upper extremity/Shoulder and upper arm	Fracture
M97.32X	Periprosthetic fracture around internal prosthetic left shoulder joint	Extremity/Upper extremity/Shoulder and upper arm	Fracture
M97.41X	Periprosthetic fracture around internal prosthetic right elbow joint	Extremity/Upper extremity/Forearm and elbow	Fracture
M97.42X	Periprosthetic fracture around internal prosthetic left elbow joint	Extremity/Upper extremity/Forearm and elbow	Fracture
M97.8XX	Periprosthetic fracture around other internal prosthetic joint	Extremity/Lower extremity/Other, multiple, and unspecified <sup>1</sup>	Fracture
M97.9XX	Periprosthetic fracture around unspecified internal prosthetic joint	Extremity/Lower extremity/Other, multiple, and unspecified <sup>1</sup>	Fracture

<sup>1</sup>Code does not specify whether the joint is located in the upper or lower extremity. A decision was made to assign the code to the Extremity/Lower extremity/Other, multiple, and unspecified body region.

SOURCES: National Center for Health Statistics and National Center for Injury Prevention and Control.

**U.S. DEPARTMENT OF  
HEALTH & HUMAN SERVICES**

Centers for Disease Control and Prevention  
National Center for Health Statistics  
3311 Toledo Road, Room 4551, MS P08  
Hyattsville, MD 20782-2064

FIRST CLASS MAIL  
POSTAGE & FEES PAID  
CDC/NCHS  
PERMIT NO. G-284

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

For more NCHS NHSRs, visit:  
<https://www.cdc.gov/nchs/products/nhsr.htm>.



---

National Health Statistics Reports ■ Number 150 ■ December 28, 2020

---

---

**Suggested citation**

Hedegaard H, Johnson RL, Garnett MF, Thomas KE. The 2020 International Classification of Diseases, 10th Revision, Clinical Modification injury diagnosis framework for categorizing injuries by body region and nature of injury. National Health Statistics Reports; no 150. Hyattsville, MD: National Center for Health Statistics. 2020.

---

**Copyright information**

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

---

**National Center for Health Statistics**

Brian C. Moyer, Ph.D., *Director*  
Amy M. Branum, Ph.D., *Acting Associate  
Director for Science*

**Division of Analysis and Epidemiology**

Irma E. Arispe, Ph.D., *Director*  
Kevin C. Heslin, Ph.D., *Associate Director for  
Science*

---

For e-mail updates on NCHS publication releases, subscribe online at: <https://www.cdc.gov/nchs/email-updates.htm>.  
For questions or general information about NCHS: Tel: 1-800-CDC-INFO (1-800-232-4636) • TTY: 1-888-232-6348  
Internet: <https://www.cdc.gov/nchs> • Online request form: <https://www.cdc.gov/info> • CS321130