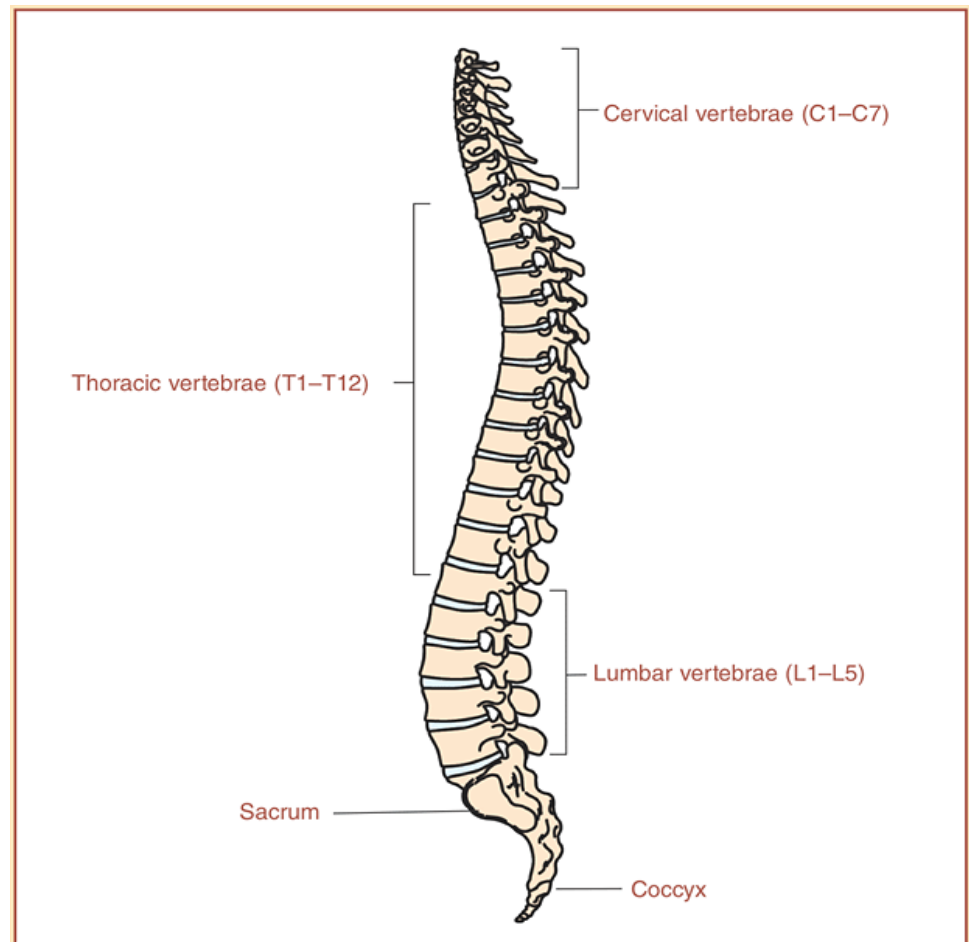
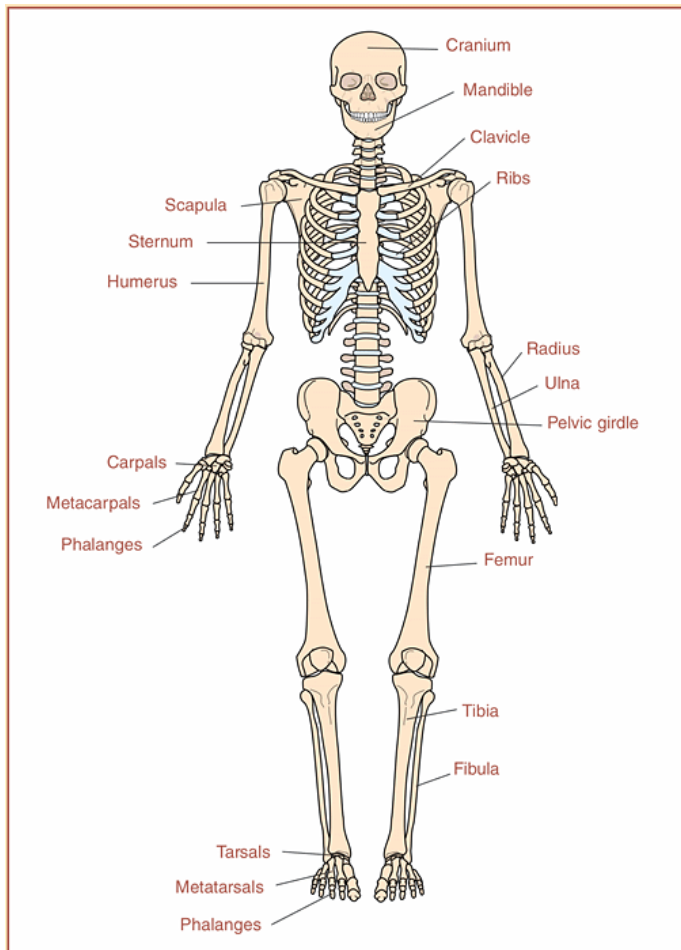


Chapter 13
Musculoskeletal and Connective
Tissue
M00-M99

Presented by
Jessica Andrews

Human Skeleton and Spinal Column



TERMS TO KNOW

- ❖ **Arthropathy** - disorder of the joint
- ❖ **Arthritis** - inflammation of the joint
- ❖ **Osteoarthritis** - the most common form of arthritis; a degenerative joint disease
- ❖ **Pathological fracture** - fracture that occurs in a bone weakened by disease
- ❖ **Dorsopathy** - disorder of the back
- ❖ **Myelopathy** - damage to the myelinated fiber tracts that carry information to the brain; disorder of the spinal cord
- ❖ **Radiculopathy** - problem in which one or more nerves are affected resulting in pain (radicular pain), weakness, numbness, or difficulty controlling specific muscles

Site and Laterality

- ❖ Most of the codes within chapter 13 have site and laterality designations.
- ❖ The site refers to either the bone, joint, or muscle involved.
- ❖ For some conditions in which more than one bone, joint, or muscle is involved (e.g., osteoarthritis), a code is available for "multiple sites."
- ❖ If no multiple sites code option is provided and if more than one bone, joint, or muscle is involved, separate codes should be used to indicate the different sites involved.

Bone vs. Joint

- ❖ For certain conditions, the bone may be affected at the upper or lower end (e.g., avascular necrosis of bone, Osteoporosis).
- ❖ Though the portion of the bone that is affected may be at the joint, the site designation will be the bone, not the joint.

Acute Traumatic vs. Chronic or Recurrent

- ❖ Many musculoskeletal conditions are a result of previous injury or trauma to a site, or are recurrent conditions.
- ❖ **Chapter 13** of ICD-10-CM contains bone, joint, or muscle conditions that are the result of a **healed injury** as well as **recurrent** or **chronic** conditions of these sites.
- ❖ ICD-10-CM classifies **current, acute** injuries to **chapter 19** (Injury, Poisoning, and Certain Other Consequences of External Causes).
- ❖ If it is difficult to determine from the documentation in the record which code is best to describe a condition, query the provider.

Back Disorders

- ❖ Careful attention to the terminology is important in coding these conditions.
- ❖ Degeneration of the disc is not the same condition as displacement (herniation) of the disc, and each requires a different code.
- ❖ For cervical disc disorders (category M50), the code for the most superior (situated toward the head and further away from the feet) level affected should be used.
- ❖ Codes for back disorders such as spondylosis and herniation of the intervertebral disc differentiate between conditions with and without myelopathy.
- ❖ Codes for a herniated disc without myelopathy include those with paresthesia but not paralysis.
- ❖ Back pain associated with herniation of an intervertebral disc is included in the code for the herniated disc; no additional code is assigned.

CERVICAL, THORACIC & LUMBAR DISC DISORDERS

M50 – Cervical Disc Disorders	M51 – Thoracic, Thoracolumbar, and Lumbarsacral Intervertebral Disc Disorders
.0 – With Myelopathy	.0 – With Myelopathy
.1 – With Radiculopathy	.1 – With Radiculopathy
.2 – Other Cervical Disc Displacement (herniation)	.2 – Other Disc Displacement (herniation)
.3 – Other Cervical Disc Degeneration	.3 – Other Disc Degeneration
.8 – Other Cervical Disc Disorders	.8 – Other Disc Disorders
.9 – Cervical Disc Disorder, Unspecified	.9 – Unspecified Disc Disorder

✓ 5th Character specifies the site

Arthritis M00, M05, M06, M08

- ❖ Arthritis is the common term for a wide variety of conditions that primarily affect the joints, muscles, and connective tissue. The associated symptoms are inflammation, swelling, pain, stiffness, and mobility problems.
- ❖ Arthritis may occur independently, but it is also a common manifestation of a variety of other conditions.
- ❖ Combination codes should be used when available, and dual-coding guidelines should be applied when combination codes are not available.

Examples:

- M11.811 Arthritis of the right shoulder due to dicalcium phosphate crystals
- E11.610 Charcot's arthritis due to type 2 diabetes
- C95.90 + M36.1 Arthritis due to leukemia
- D66 + M36.2 Hemophilic arthritis
- A69.23 Arthritis associated with Lyme disease

Osteoarthritis M15 - M19

- ❖ Most common form of arthritis; polyarthritis, degenerative or hypertrophic arthritis.
- ❖ Degenerative joint disease (DJD), usually occurring in older people, with chronic degeneration of the articular cartilage and hypertrophy of the bone.
- ❖ Pain and swelling.

- ❖ **M47** Spinal involvement: Spondylosis.

- ❖ The primary axis for coding osteoarthritis is the site, whether it involves multiple sites (M15.-, Osteoarthritis) or single joints. Laterality applies to M16-M19.

- ❖ Codes further specify whether the condition is primary or secondary (for example, posttraumatic).
 - Primary osteoarthritis, also known as polyarticular degenerative arthritis, affects joints in the spine, knee, and hip, as well as certain small joints of the hands and feet.

 - Secondary arthritis, also called monoarticular arthritis, is confined to the joints of one area and results from some external or internal injury or disease.

- ❖ **M15.9** Polyosteoarthritis, unspecified . Osteoarthritis that involves multiple sites but is not specified as generalized.

Arthritis/Osteoarthritis

ARTHRITIS	CATEGORY
Pyogenic	M00-
Rheumatoid arthritis with rheumatoid factor	M05-
Rheumatoid arthritis (other)	M06-
Juvenile arthritis	M08-
Osteoarthritis	M15- through M19-
Polyosteoarthritis	M15-
Osteoarthritis of hip	M16-
Osteoarthritis of knee	M17-
Osteoarthritis of first carpometacarpal joint	M18-
Osteoarthritis – other and unspecified	M19-

Exercise 13.1

1. Acute left ankle and chronic right knee gouty arthritis
2. Rheumatoid arthritis of the left elbow with polyneuropathy
3. Herniated intervertebral disc, L4-5, with myelopathy
4. Osteoarthritis, C3-4, with radiculopathy

Exercise 13.1

1. Acute left ankle and chronic right knee gouty arthritis
M10.072 + M1A.061
2. Rheumatoid arthritis of the left elbow with polyneuropathy
M05.522
3. Herniated intervertebral disc, L4-5, with myelopathy
M51.06
4. Osteoarthritis, C3-4, with radiculopathy
M47.22

Derangement/Subluxation

- ❖ **Derangement:** The knee joint is a hinge that connects the rounded, bony ends (condyles) of the femur and the tibia and is bounded in front by the patella. Ligaments, muscles, and tendons help confine joint motion. Menisci and cartilage cushion the joint against forces that bear on the knee. Damage from an injury or chronic overuse results in pain and may lead to derangement.
 - Current injury is coded as a 'tear' chapter 19, **S** category
 - Recurrent injury is coded to chapter 13, **M** category
- ❖ **Subluxation:** The kneecap slides up and down a groove on the end of the femur as the knee bends. In some people, the kneecap is pulled towards the outside of the knee.

Joint Derangements

Knee	Category	4 th -5 th Character Specific disorder	6 th Character Laterality
Patella	M22-	Recurrent dislocation Recurrent subluxation Patellofemoral disorder Other derangement Chondromalacia Other disorders Unspecified disorder	1 Right 2 Left 9 Unspecified
Internal derangement of knee	M23-	Cystic meniscus Meniscus due to old tear/injury Other meniscus derangement Loose body in knee Chronic Instability	6 th Character Laterality
Tear of meniscus – current injury	S83.2-	Unspecified, bucket handle, medial, lateral	7 th Character Encounter
Other joints			
Other specific joint derangements	M24-	4 th character – specific disorder 5 th character – joint	6 th Character Laterality

Osteoporosis M80- and M81-

- ❖ Osteoporosis is a systemic condition that affects all bones of the musculoskeletal system and leads to an increased risk of pathological fractures.
- ❖ In osteoporosis, the bones are thinner and weaker than normal.
- ❖ Osteoporosis is classified to categories M80 and M81 depending on whether a current pathological fracture is present or not.
- ❖ Because osteoporosis is a systemic condition, site is not a component of the codes under category M81, Osteoporosis without current pathological fracture.
- ❖ The codes under category M80, Osteoporosis with current pathological fracture, identify the osteoporosis and the site of the pathological fracture.

Pathological Fractures M84.4-M84.6-

- ❖ Pathological (spontaneous) fractures occur in bones that are weakened by disease.
- ❖ These fractures are usually spontaneous but sometimes occur in connection with slight trauma (such as a minor fall) that ordinarily would not result in a fracture in normal, healthy bone.
- ❖ There are many different underlying causes for pathological fractures, including osteoporosis, metastatic tumor of the bone, osteomyelitis, Paget's disease, disuse atrophy, hyperparathyroidism, and nutritional or congenital disorders.
- ❖ When the fracture is described as a compression fracture, the record should be reviewed to determine whether any significant trauma has been experienced.
- ❖ A fall from a height, such as a diving board, with compression fracture of the spine is classified as an injury, but a compression fracture in an older patient resulting from a slight stumble or another minor injury is usually considered pathological, particularly when the patient also suffers from an underlying condition that frequently causes such fractures. The physician should be asked for clarification.
- ❖ All pathological fractures are classified to the following categories/subcategories according to the underlying cause:
 - Category M80 Osteoporosis with current pathological fracture
 - Subcategory M84.4-Pathological fracture, not elsewhere classified
 - Subcategory M84.5-Pathological fracture in neoplastic disease (code also the underlying cause)
 - Subcategory M84.6-Pathological fracture in other disease (code also the underlying condition)

Pathological Fracture

- ❖ Sequencing of codes for pathological fractures depends on the circumstances of admission. A pathological fracture is designated as the principal diagnosis only when the patient is admitted solely for treatment of the pathological fracture.
- ❖ The code for the underlying condition responsible for the fracture is listed first, with an additional code for the fracture. An example follows.
 - Pathological fracture due to neoplasm: If the focus of treatment is the fracture, a code from subcategory **M84.5**, Pathological fracture in neoplastic disease, should be sequenced first, followed by the code for the neoplasm.
 - If the focus of treatment is the neoplasm with an associated pathological fracture, the neoplasm code should be sequenced first, followed by a code from **M84.5** for the pathological fracture. The "code also" note at **M84.5** provides this sequencing instruction.
- ❖ Never assign a code for both a traumatic fracture and a pathological fracture of the same bone :

Stress Fracture M84.3-

- ❖ Stress fractures are different from pathological fractures.
- ❖ Stress fractures are due to repetitive force applied before the bone and its supporting tissues have had enough time to provide such force.
- ❖ Stress fractures usually test negative in an X-ray display, and days or weeks may pass before the fracture line is visible on an X-ray.
- ❖ An additional External cause of morbidity codes (chapter 20) are used to identify the cause of the stress fracture.
 - Example: **Y93.01** Activity, walking, marching and hiking.
- ❖ Other terms classified to stress fractures are fatigue fracture, march fracture, and stress reaction fracture

4th, 5th, 6th & 7th Characters for Stress and Pathological Fractures

4 th Character	5 th Character	6 th Character	7 th Character
STRESS			
M84.3 Unspecified	SITE	LATERALITY	✓ ENCOUNTER
PATHOLOGICAL			
M84.4 Unspecified	SITE	LATERALITY	✓ ENCOUNTER
M84.5 In Neoplasm	SITE	LATERALITY	✓ ENCOUNTER
M84.6 In Other DZ	SITE	LATERALITY	✓ ENCOUNTER

Seventh Character Assignment

Stress and Pathological Fractures

- ❖ 7th Character encounter codes are required for each code in subcategory **M84.3-** through **M84.6-**
- **A** Initial encounter (active treatment; surgical, emergency & new physician).
- **D** Subsequent encounter with routine healing
- **G** Subsequent encounter with delayed healing
- **K** Subsequent encounter with nonunion
- **P** Subsequent encounter with malunion
- **S** Sequela (the residual effect after the acute phase of the fracture has terminated).

Exercise 13.2

1. 65 year old postmenopausal women with osteoporosis presents to the emergency room with a pathological fracture of the left wrist
2. Patient has cancer of the sigmoid colon and is admitted for a pathological fracture of the right femur
3. Derangement of the right knee
4. Subsequent encounter for a healing Stress fracture of the left femur

Do Not Code External Cause of Injury codes for this Exercise

Exercise 13.2

1. 65 year old postmenopausal women with osteoporosis presents to the emergency room with a pathological fracture of the left wrist
M80.032A
2. Patient has cancer of the sigmoid colon and is admitted for a pathological fracture of the right femur
M84.551A + C18.7
3. Derangement of the right knee
M23.91
4. Subsequent encounter for a healing Stress fracture of the left femur
M84.352D

Joint Pain M25.5-

Pain in joint	M25.5-
Unspecified joint	M25.50-
Shoulder	M25.51-
Elbow	M25.52-
Wrist	M25.53-
Hip	M25.55-
Knee	M25.56-
Ankle and joints of foot	M25.57-

6th Character Specifies Laterality

1 – Right

2 – Left

9 – Unspecified

Back/Lumbago/Sciatica/Neck Pain M54.-

Cervicalgia (neck pain)	M54.2
Low	M54.5
Thoracic	M54.6
Other dorsalgia	M54.8-
Occipital neuralgia	M54.81
Other dorsalgia	M54.89
Sciatica	✓ M54.3-
Lumbago with sciatica	✓ M54.4-

✓ 6th Character specifies Laterality

0 – Unspecified

1 – Right

2 – Left

Synovitis and Tenosynovitis

Abscess of tendon sheath	M65.0-
Other infective (teno)synovitis	M65.1-
Calcific tendinitis	M65.2-
Trigger finger	M65.3-
Other (teno)synovitis	M65.8-
Spontaneous rupture of synovium and tendon	M66-
Other disorders of synovium and tendon	M67-

5th Character specifies Site

6th Character specifies Laterality

Rotator Cuff Tear M75, S46

Rotator Cuff Tear (non traumatic)	M75.1-	6th Character
Unspecified	M75.10-	0 - Unspecified
Incomplete	M75.11-	1 - Right
Complete	M75.12-	2 - Left
Injury of the Rotator Cuff	✓ S46.00-	6th Character
Unspecified injury	✓ S46.00-	1 - Right
Strain of muscles/tendons	✓ S46.01-	2 - Left
Laceration of muscles/tendons	✓ S46.02-	9 - Unspecified

✓ 7th Character Required

Category S46
Can be found in Chapter 19
Injury, Poisoning & External Causes

Fractures

Skull	✓ S02-
Cervical	✓ S12-
Rib, Sternum, Thoracic	✓ S22-
Lumbar Spine, Pelvis	✓ S32-
Shoulder, Upper Arm	✓ S42-
Forearm	✓ S52-
Wrist, Hand	✓ S62-
Femur	✓ S72-
Lower Leg, including Ankle	✓ S82-
Foot, Toe except Ankle	✓ S92-

4th Character – Bone

5th Character – Portion of the Bone or Fracture Type

6th Character – Laterality/Displaced/Non-Displaced

7th Character – Encounter

✓ **7th** Character Required

Open or Closed Fracture

- ❖ **Open Fracture:** An open wound that communicates with the bone.
 - Compound, Infected, Missile, Puncture, With Foreign Body
- ❖ **Closed Fracture:** No open wound
 - Comminuted, Depressed, Elevated, Greenstick, Spiral, Simple, and Transverse.

A fracture not classified as open or closed, is coded as closed

Displaced or Nondisplaced Fracture

- ❖ **Displaced Fracture:** A complete break and shift in the bone from its original place, sometimes so much that it protrudes from the body.
- ❖ **Non-displaced:** A bone break in which the ends of the fracture remain lined up. Typically, this type of fracture is seen only in an x-ray.

*** A Fracture not indicated as displaced or nondisplaced should be coded to displaced***

7th Character

Femur S72 & Lower Leg S82

- A** initial encounter for **closed** fracture
- B** initial encounter for **open** fracture type I or II
- C** initial encounter for **open** fracture type IIIA, IIIB, or IIIC
- D** subsequent encounter for **closed** fracture with routine healing
- E** subsequent encounter for **open** fracture type I or II with routine healing
- F** subsequent encounter for **open** fracture type IIIA, IIIB, or IIIC with routine healing
- G** subsequent encounter for **closed** fracture with delayed healing
- H** subsequent encounter for **open** fracture type I or II with delayed healing
- J** subsequent encounter for **open** fracture type IIIA, IIIB, or IIIC with delayed healing
- K** subsequent encounter for **closed** fracture with nonunion
- M** subsequent encounter for **open** fracture type I or II with nonunion
- N** subsequent encounter for **open** fracture type IIIA, IIIB, or IIIC with nonunion
- P** subsequent encounter for **closed** fracture with malunion
- Q** subsequent encounter for **open** fracture type I or II with malunion
- R** subsequent encounter for **open** fracture type IIIA, IIIB, or IIIC with malunion
- S** sequela

Gustilo Classification

Gustilo Grade:	Definition:
I	Open fracture, clean wound, wound < 1 cm in length
II	Open fracture, wound > 1 cm in length without extensive soft tissue damage, flaps, avulsions
III	Open fracture with extensive soft-tissue laceration, damage, or loss or an open segmental fracture. This type also includes open fractures caused by farm injuries, fractures requiring vascular repair, or fractures that have been open for 8 hours prior to treatment
IIIA	Type III fracture with adequate periosteal coverage of the fracture bone despite the extensive soft-tissue laceration or damage
IIIB	Type III fracture with extensive soft-tissue loss and periosteal stripping and bone damage. Usually associated with massive contamination. Will often need further soft tissue coverage procedure (free or rotational flap)
IIIC	Type III fracture associated with an arterial injury requiring repair, irrespective of degree of soft-tissue injury

ICD-10 open fracture designations are based on the Gustilo open fracture classification

7th Character

Hand & Wrist S62

- A** initial encounter for **closed** fracture
- B** initial encounter for **open** fracture
- D** subsequent encounter for fracture with routine healing
- G** subsequent encounter for fracture with delayed healing
- K** subsequent encounter for fracture with nonunion
- P** subsequent encounter for fracture with malunion
- S** sequela

*** Each Fracture site has different 7th Character choices***

Exercise 13.3

1. Fracture temporal bone of the skull, initial encounter.
2. Open Fracture of the Right Wrist, initial encounter.
3. Type IIIB Open Fracture of the left femoral head, subsequent encounter with delayed healing

Exercise 13.3

1. Fracture temporal bone of the skull, initial encounter.
S02.19xA
1. Open Fracture of the Right Wrist, initial encounter
S62.101B
3. Type IIB Open Fracture of the left femoral head, subsequent encounter with delayed healing
S72.052J

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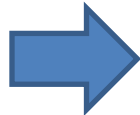
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