Lesson 32

CPT Surgical Coding, Part 1

Step 1  Learning Objectives for Lesson 32

When you have completed the instruction in this lesson, you will be trained to do the following:

- Navigate the Surgery section of the CPT.
- Explain key surgical procedures and definitions for the integumentary, musculoskeletal, respiratory, cardiovascular, hemic and lymphatic, digestive and urinary systems, as well as procedures for the mediastinum and diaphragm.
- Code for surgical procedures.

Step 2  Lesson Preview

Are you ready to dive into the heart of procedural coding? Over the next couple lessons, you’ll be working through the Surgery section of the CPT, step-by-step. We’ll examine different body systems and anatomic sites, as well as types of procedures. We’ll also define any vocabulary words that you’ll need to know to master procedural coding. Just like in Course Three, you’re going to get plenty of practice, both with instruction and on your own. So make sure your CPT is handy!

You’ll be working through the Surgery section of the CPT, step-by-step.
In this lesson, you’re going to study procedures related to the following:

- General
- Integumentary System
- Musculoskeletal System
- Respiratory System
- Cardiovascular System
- Hemic and Lymphatic Systems
- Mediastinum and Diaphragm
- Digestive System
- Urinary System

What are you waiting for? Let’s get going!

📚 Step 3  Welcome to the Surgery Section!

- Open your CPT to the start of the Surgery section. Take a moment now to read through the Surgery Guidelines section. This section is here to help you find exactly what information and codes you need. You’ll note the definition of a surgical package and a separate procedure.

As you work through the materials, you will encounter real-world scenarios that follow medical transcription rules. The rules followed by medical transcriptionists may vary from the rules followed by a medical coding specialist. For instance, medical transcriptionists do not use possessives for eponyms such as Alzheimer disease, while the ICD-9-CM will list the disease as Alzheimer’s in the Index as well as in the Tabular List. In addition, a medical transcriptionist will list stages of burns as 1st-degree, while the medical coder will locate first-degree. Keep in mind, the dictation provided has been formatted to compliment the medical transcription portion of your program, but you may see variances when learning the medical coding portion.

How the Surgery Section Is Arranged

While the Surgery section is the longest section of the CPT, it is not the most difficult. Everything in this section is logically arranged so you can find exactly what you need. You just need to know how to find your way around. The first level of order in the Surgery section is body system.
There are 19 subsections:

1. General
2. Integumentary System
3. Musculoskeletal System
4. Respiratory System
5. Cardiovascular System
6. Hemic and Lymphatic Systems
7. Mediastinum and Diaphragm
8. Digestive System
9. Urinary System
10. Male Genital System
11. Reproductive System Procedures
12. Intersex Surgery
13. Female Genital System
14. Maternity Care and Delivery
15. Endocrine System
16. Nervous System
17. Eye and Ocular Adnexa
18. Auditory System
19. Operating Microscope

The next level of order in the Surgery section is by anatomical site. The sites always progress from top to bottom and from outside to inside. For example, the headings in the Respiratory System section are:

- Nose
- Accessory Sinuses
- Larynx
- Trachea and Bronchi
- Lungs and Pleura

The final level of order for the Surgery section is by type of procedure. There are many different procedures listed in the CPT. We’ll look at the important ones as you work through each section.
Steps to CPT Coding Review

Before you dive into the Surgery section, let’s quickly review the nine steps for CPT coding.

1. Read the documentation and determine the main term. Main terms can be procedures or services, anatomical sites, conditions or diseases, synonyms, eponyms or acronyms.
2. Next, look up the main term in the CPT Index. Find the main term and subterms that best represent your procedure.
3. Locate the tentative code or codes in the CPT Index.
4. Turn to the main part of the CPT to locate the tentative code or codes.
5. Read the guidelines for the section you’re using.
6. Read the procedure description to be sure you’ve found the right code.
7. If there are any symbols next to your code, double-check the legend at the bottom of each page.
8. If necessary, apply a modifier(s) for your code.
9. Read the dictation to identify all procedures, then assign the CPT code(s) and modifier(s), if applicable.

NOTE: Throughout the CPT coding lessons, you will refer to the Anatomy and Physiology textbook included with your course work to enhance your understanding of the material. We encourage you to read the required chapters and complete the Practice Exercises within the Anatomy and Physiology book to prepare you for the Mail-in Quiz.

Sales 4 General 10021-10022 and Integumentary System 10040-19499

The surgery section opens with the General Section, which includes only two codes. (That’s an easy way to begin!) After that is the Integumentary System. Let’s look at both.

The General section covers fine needle aspiration, both with and without imaging guidance. Fine needle aspiration is the removal of a gas, fluid or cluster of cells from a cyst. These codes target cysts located on the skin, nails or breasts. Note the instructions that direct you to other sections if you’re looking for similar procedures for different body systems.
You’ll remember from the diagnostic coding lesson concerning diseases of the skin and subcutaneous tissue that the integumentary system includes the skin, hair, nails and the glands in the skin (such as sweat glands). The integumentary system is the largest organ system in the body, covering nearly two square meters of surface area!

The *Integumentary System* subsection includes seven headings:

1. Skin, Subcutaneous and Accessory Structures
2. Nails
3. Pilonidal Cyst
4. Introduction
5. Repair (Closure)
6. Destruction
7. Breast

Please read *Anatomy and Physiology*, Chapter 2, *The Integumentary System*, for a better understanding of this section.
Skin, Subcutaneous and Accessory Structures

The subheadings within *Skin, Subcutaneous and Accessory Structures* contain many notes, add-on codes and definitions to review. We will discuss each subheading in detail to assist you in understanding the surgical procedures. This heading has eight subheadings:

1. Incision and Drainage
2. Debridement
3. Pairing or Cutting
4. Biopsy
5. Removal of Skin Tags
6. Shaving of Epidermal or Dermal Lesions
7. Excision—Benign Lesions
8. Excision—Malignant Lesions

Incision and Drainage

For this type of procedure, a doctor cuts open a lesion to allow drainage. There are different codes for different conditions, such as acne, abscess, cyst, foreign body and hematoma. Read through these code listings and you’ll see that many of the codes specify whether the procedure was simple or complicated. Some specify single or multiple. When the medical documentation does not specify the procedure as complicated or featured multiple incisions and drainage, you will code to simple or single.

Debridement

Debridement is a special type of excision that cleans the body surface areas and removes necrotic, or dead, tissue. The extent of the cleaning is based on depth, which is included in the documentation. There are different codes for debridement of different depths, from skin to all the way to bone. Debridement codes are used for procedures involving prolonged cleaning or if the cleaning does not include a primary closure. A primary closure is a wound that requires sutures. Debridement in conjunction with wound repairs will be discussed later in this section. Let’s look at an example.

SUBJECTIVE
A 10-year-old boy suffered a laceration on his knee following a crash on his mountain bike. The left knee appears to have dirt embedded as well as necrotic tissue. He also has scrapes and bruises on his legs and arms.

OBJECTIVE
Using a scalpel, the epidermal layer is removed, and the partial thickness of skin is excised until viable, bleeding tissue is found. A topical antibiotic is applied, and then gauze dressing is wrapped around the knee.

ASSESSMENT
A 4 sq cm laceration on the left knee with multiple abrasions and contusions located on the legs and arms.

PLAN
Patient is discharged in good condition. Parents are instructed to change dressing as needed and to use Neosporin to assist with healing.
In this example, the wound is not repaired so you will code the debridement of the knee. To locate the correct code, turn in the Index of your CPT to Debridement, Skin, Subcutaneous Tissue for the tentative code range of 11042-11047. Turn to the main body of the CPT to review the guidelines and read the code description. You will assign 11042 Debridement, subcutaneous tissue (includes epidermis and dermis, if performed); first 20 sq cm or less to this example.

**Pairing or Cutting**

This subheading addresses the removal of hyperkeratotic lesions by peeling, scraping or cutting the lesion. A hyperkeratotic lesion is a rough, thick patch of skin such as a corn or callus. Turn to 11055-11057 in the body of your CPT and read the description of each code. For accurate coding, you will select the code based on the number of lesions removed.

**Biopsy**

A biopsy is the removal of a piece of tissue for examination. With a biopsy, not all of the lesion is removed. If it was, then it would be coded as an excision. Read through the guidelines at the beginning of the biopsy section. Note that many procedures include a biopsy as part of the operation. In these cases, the biopsy is included under the main procedure code (such as excision or destruction). These biopsy codes are used when the biopsy is performed as a separate procedure. Let’s work through an example biopsy.

A 59-year-old male is seen by his family physician for a strange discoloration on his right forearm. A punch biopsy is performed to remove a disc of tissue. The tissue will be submitted to pathology. They will determine the type of lesion. The patient will be contacted with the results.

To code this service, locate Biopsy, Skin Lesion in Index. The tentative code range is 11100-11101. Now turn to the main part of the CPT to review the guidelines and read the code descriptions to determine the correct code. You will then assign 11100 Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed; single lesion.

**Removal of Skin Tags**

Skin tags are a common occurrence with middle-aged people. They are a small growth of skin usually located on the neck, armpits or chest. Generally, they are benign. Removal of skin tags is done because of irritation or cosmetic reasons. Skin tags can be removed many different ways. Read the CPT instructions for skin tags for a list. Also note that 11201 is an add-on code for an extra 10 lesions beyond the basic 15 and is used in conjunction with code 11200.
Shaving of Epidermal or Dermal Lesions

Shaving of epidermal or dermal lesions is when a physician uses a horizontal slicing motion to remove a single, elevated lesion from a specified area of the body. Look at the code listings for this subheading, and you see that the codes are determined by location of the lesion, then by diameter. If the chart lists more than one lesion shaved, you’ll need to use modifier 51 to indicate multiple procedures. Also, note that these codes do not include full-thickness dermal excisions. Those are covered by the next two subheadings.

Excision—Benign Lesions and Excision—Malignant Lesions

The only difference between these two subheadings is benign vs. malignant. You’ll recall that benign neoplasms are noncancerous growths that remain localized and never metastasize, while malignant neoplasms often become progressively worse and can eventually result in death. Excision of benign or malignant lesions is defined in the CPT guidelines as a full-thickness removal of a lesion and includes a simple closure.

Benign and malignant tumors

Excision—Lesions Coding Tips

1. Benign lesions do not include skin tags.
2. Codes are based on location, then size of the excised lesion.
3. Repair by intermediate or complex closure should be reported separately.
Nails

Fingernails and toenails are hard, keratinized cells produced by the epidermis. The **nail plate** is the part that attaches firmly to the skin and isn’t covered by the skin. The **nail matrix** or root of the nail is located beneath the proximal nail fold. The nail plate is generated at the nail matrix. The **nail bed** is the skin under the nail.

To properly code nail procedures, be sure to note when the code description includes the number of nails. The code may specify one to five nails or be an add-on code for each additional nail. You’ll also need to know these techniques:

1. Trimming—Cutting one or more fingernails or toenails using scissors or nail cutters.
2. Debridement—Cleaning the tops and undersides of a fingernail or toenail using a cleaning solution, abrasive material and tools.
3. Avulsion of nail plate—Removing the nail plate from the nail bed using a digital nerve block.
4. Excision of nail or nail matrix—Removing all or part of a fingernail or toenail, including the nail plate and matrix.
5. Wedge excision of skin of nail fold—Excising the skin overlapping the nail and trimming the nail for straight growth. This procedure is done to free an ingrown nail.

Pilonidal Cyst

A **pilonidal cyst** is the presence of hair in a dermoid cyst or in a sinus opening on the skin. This cyst may produce chronic inflammation and may lead to the formation of a cavity in the tissue. It is most often found in the sacral region. Let’s look at the following example for a better understanding of this condition.

A 20-year-old male, active in college sports, has had recurrent pain and swelling at the base of his spine caused by pilonidal cysts. He has had the abscess incised and drained on numerous occasions. Because of his history and the size of this infected cyst, a simple excision of the cyst is performed.

To code this, locate Cyst, Excision, Pilonidal for the tentative code range of 11770-11772. Now turn to the main body of the CPT to review the guidelines and read the code descriptions. *Extensive or complicated* must be documented to assign codes 11771 or 11772. Therefore you will assign 11770 **Excision of pilonidal cyst or sinus; simple** for this example.
Introduction

Procedures found within *Introduction* include lesion injection, tattooing, tissue expansion, insertion and removal of implantable contraceptive capsules, and implanting estradiol and/or testosterone pellets beneath the skin.

Tattooing might be used by physicians to disguise birthmarks or scars. The procedures are coded based on the square centimeters covered.

Repair (Closure)

This heading is divided into 10 subheadings:

1. Repair—Simple
2. Repair—Intermediate
3. Repair—Complex
4. Adjacent Tissue Transfer or Rearrangement
5. Skin Replacement Surgery
6. Flaps (Skin and/or Deep Tissues)
7. Other Flaps and Grafts
8. Other Procedures
9. Pressure Ulcers (Decubitus Ulcers)
10. Burns, Local Treatment

Let’s take a closer look at simple, intermediate and complex repairs. The wounds can be sutured, stapled or held together by tissue adhesives (glue) to indicate a repair or closure. The wound repairs are classified by complexity of the repair, grouped by anatomical site and separated by the length of the wound repair. Debridement is considered part of the repair unless it is documented as gross contamination requiring prolonged cleaning or when large amounts of dead or contaminated tissue are removed. Let’s take a closer look at how these repairs are organized.

Classification—Simple, Intermediate, or Complex Repair

Repairs can either be simple, intermediate or complex:

- **Repair—Simple**: Superficial wounds that require a simple one layer closure, includes local anesthesia and chemical or electrocauterization of wounds not closed.
Repair—Intermediate: Wounds that require layered closure of one or more of the deeper layers of subcutaneous tissue and superficial fascia, in addition to the skin closure. An intermediate repair could also include single-layer closures that require extensive cleaning or removal of foreign bodies.

Repair—Complex: Complicated wound closures, those that require more than layered closures, scar revision or debridement.

However, when more than one classification of wounds is repaired, list the more complicated as the primary procedure and the less complicated as the secondary procedure, appending the modifier 59 to the secondary procedure.

Grouped by Anatomical Site

Take a look at the repair codes. You’ll see that each subheading (simple, intermediate, complex) is divided into parts based on anatomical site, as well a complexity of the wound.

Repair—Simple: Three groupings of 1) scalp, neck, axillae, external genitalia, trunk and/or extremities, which include the hands and feet, 2) face, ears, eyelids, nose, lips and/or mucous membranes or 3) treatment of superficial wound dehiscence

Repair—Intermediate: Three groupings of 1) scalp, axillae, trunk and/or extremities, which exclude hands and feet, 2) neck, hands, feet and/or external genitalia or 3) face, ears, eyelids, nose, lips and/or mucous membranes

Repair—Complex: Five groupings of 1) trunk, 2) scalp, arms and/or legs, 3) forehead, cheeks, chin, mouth, neck, axillae, genitalia, hands and/or feet, 4) eyelids, nose, ears and/or lips or 5) secondary closure of surgical wound or dehiscence

Sum of Lengths

The documentation should indicate the length, in centimeters, of the repaired wound. When multiple wounds in the same classification (see above) are repaired, you add together those wounds in the same groupings. For example, a patient had a 2 cm laceration on her right arm repaired and a 3 cm laceration on her left leg repaired, both requiring simple one layer closure. Since the classification is the same, you add the total length from the grouping to determine the single code that applies. In the example, you will code 12002, because the total length repaired is 5 cm for the scalp, neck, axillae, external genitalia, trunk and/or extremities grouping. Be sure to avoid adding lengths from different anatomical groupings.

When recording multiple repairs, you will list the more complicated repair first, followed by the other repair with modifier 59.
Try coding this scenario.

SUBJECTIVE
Patient sustained a 1.2 cm eyelid laceration and a 3.5 cm forearm laceration following a fall down the stairs at home.

OBJECTIVE
Patient presented to the emergency department complaining of a wound to the left eyelid and forearm and requested evaluation. After examination of the forearm, eye and eyelid, no foreign body was noted. Eyewash was introduced for approximately 5 minutes to thoroughly clean the eye. The laceration in the left upper eyelid was 1.2 cm in length, while the forearm was 3.5 cm in length. It was felt sutures would provide the best healing for both injuries. A simple repair of the lacerations with 3-0 nylon sutures was made.

ASSESSMENT
Simple 1-layer repair of 1.2 cm eyelid laceration and 3.5 cm forearm laceration.

PLAN
A patch was placed over the eye and prescription drops were given. The patient is to make an appointment with his family physician to be seen in the next 3 days.

To code the procedure, you determine the main term to be Repair. What is the physician repairing? The wound on the forearm. In the Index, locate Repair, Skin, Wound, Simple for the tentative code range of 12020-12021. Turn to the main body of the CPT to review the guidelines and read the code description. Codes 12020-12021 are for the treatment of superficial wound dehiscence. Dehiscence is a separation of the layers of a surgical wound. This code description does not match the documentation. (That’s why it’s important to read the code description!) Let’s go back to the Index and try another pathway.

In the Index, you will locate Repair, Wound, Simple for the tentative code range of 12001-12021. Turn to the body of the CPT to review the guidelines and read the code descriptions to determine the correct code for this scenario. First, locate the code for the eyelid, which would be a wound of the face, ears, eyelids, nose, lips and/or mucous membranes, so you will narrow your search to the code range 12011-12018. The length of the wound is documented to be 1.2 cm and 12011 is indicated as the correct code. Now, let’s turn to the forearm repair. Your search would be in the code range of 12001-12007, as it is a simple wound repair. The forearm would be a wound of the scalp, neck, axillae, external genitalia, trunk and/or extremities (including hands and feet) Code 12002 indicates 2.6 cm to 7.5 cm in length, which this would be. You will assign 12002 Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk and/or extremities (including hands and feet); 2.6 cm to 7.5 cm and 12011-59 Simple repair of superficial wounds of face, ears, eyelids, nose, lips, and/or mucous membranes; 2.5 cm or less – Distinct Procedural Service for this example.
Destruction

Destruction is to destroy a lesion by any means other than excision. The codes from this subsection are for benign, premalignant or malignant lesions destroyed by electrosurgery, cryosurgery, laser and chemical treatment.

Let’s build on the example of the 59-year-old male who had a punch biopsy of a skin lesion. The pathology report indicates it is a premalignant lesion, and the physician recommends cryosurgery to destroy the single lesion. Cryotherapy involves the use of a liquid nitrogen spray or a very cold probe to freeze and kill abnormal cells. Usually cryosurgery involves little or no pain. The patient consents to the treatment and local anesthesia is administered prior to the cryosurgery being performed. The patient is released in good condition.

To code this, locate the main term of Cryosurgery in the Index. You are provided some codes, but you are also directed to See Cryotherapy; Destruction. The semi-colon acts as the word “or.” This means you can use either Cryotherapy or Destruction as the main term. Using Cryotherapy as the main term doesn’t get you to the skin lesion; therefore, turn to Destruction to see what codes are offered. Destruction, Lesion, Skin, Premalignant provides the tentative code range of 17000-17004 and code 96567. Turn to the body of the CPT to read the code descriptions to determine the correct code for this scenario. Only one lesion is documented, so you assign 17000 Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curetttement), premalignant lesions (eg, actinic keratoses); first lesion.

Destruction Coding Tip

Note that codes for the destruction of malignant lesions are based on location, then diameter.

Mohs Micrographic Surgery

Mohs Micrographic Surgery is a sophisticated type of destruction procedure for the removal of complex or ill-defined skin cancer. The surgeon uses the Mohs Microscope to view the lesion and assess its pathology. You will note stages indicated in certain codes. This process involves stages of removing one layer of skin, examining it, then removing another layer to examine. This process is continued until cancerous cells are no longer identified. The physician acts as both the surgeon and pathologist with this particular procedure.
Breast

This heading is divided into six subheadings:

1. Incision
2. Excision
3. Introduction
4. Mastectomy Procedures
5. Repair and/or Reconstruction
6. Other Procedures

These six subheadings are common procedures found within many subsections of the CPT Surgery section. We will define the procedures and refer to these with subsections that contain the common procedures.

Breast Procedural Definitions

Incision: To cut open or into with a sharp instrument.
   Suffix: -otomy
   Meaning: cutting into or incision of

Excision: To remove or cut out.
   Suffix: -ectomy
   Meaning: excision or removal of

Introduction: To put in or insert.

Repair: To restore damaged or diseased tissue.
   Suffix: -orrhaphy
   Meaning: repair or suture of

Reconstruction: To rebuild, re-assemble or re-form tissue.
   Suffix: -plasty
   Meaning: repair or reconstruction of

When coding breast procedures, there are a couple of things to keep in mind. First, breast codes reflect unilateral procedures only. If the procedure is done on both breasts, use the modifier 50—Bilateral Procedure. Second, there are two types of breast biopsies: *incisional* and *excisional*. With *incisional* biopsies, only a portion of the lesion is removed. With *excisional* biopsies, the entire lesion, whether benign or malignant, is removed. Read through the CPT guidelines on biopsies for breast procedures.
Mastectomies and Lumpectomies

A mastectomy is the removal of breast tissue. Lumpectomies are the removal of lesions (benign or malignant) from the breast tissue. Mastectomies can be partial (leaving part of the breast intact) complete (leaving only the lymph nodes) or radical (leaving nothing).

Now that you have a good understanding of the Integumentary System, let’s work through some practice exercises!

Step 5  Practice Exercise 32-1

Apply what you have learned about the Integumentary System by coding the following.

1. Removal of 10 skin tags on the neck and 6 located on the chest.
   CPT: ________________________
   CPT: ________________________

2. Shaving of a 1.1 epidermal lesion located on the neck and a 0.7 cm dermal lesion located on the leg.
   CPT: ________________________
   CPT: ________________________

3. A layered closure of a 2.6 cm laceration of the cheek and a simple one layer closure of a 1.5 cm laceration on the lip.
   CPT: ________________________
   CPT: ________________________

4. Excision of a pressure ulcer on the trochanter with primary suture.
   CPT: ________________________

5. Puncture aspiration of a cyst located on the right breast.
   CPT: ________________________

6. Modified radical mastectomy including axillary lymph nodes.
   CPT: ________________________
7. CPT Coding Challenge:

PREOPERATIVE DIAGNOSIS
Chronic decubitus ulcer of the right great toe.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
EXCISIONAL DEBRIDEMENT OF SKIN AND SUBCUTANEOUS TISSUE OF RIGHT GREAT TOE.

BRIEF HISTORY
This is a pleasant 86-year-old man with a chronic decubitus ulcer of the toe. He is also being treated for hypertension and COPD.

PROCEDURE
The patient’s foot was prepped with diluted Betadine solution. Following this, the necrotic tissue surrounding the ulcer was sharply excised through the skin and the subcutaneous tissue. The tissue was debrided until it started to bleed around the edge of the ulcer. This procedure was accomplished with minimal local anesthesia, and the patient tolerated it with little or no pain. The wound was packed with saline-dampened gauze and wrapped with sterile dressings.

CPT: _______________________

Step 6  Review Practice Exercise 32-1

- Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 7  Musculoskeletal System 20005-29999

- The musculoskeletal system is composed of two body systems that work closely together: the skeletal and muscular system. The skeletal system includes bones, joints, cartilage and the spine. This system provides support for the body. The muscular system includes muscles, ligaments and tendons. This system allows the body to move.

Please read Anatomy and Physiology, Chapter 3, The Musculoskeletal System, for a better understanding of this section.
The **Musculoskeletal System** subsection consists of 16 headings, which are further divided into subheadings. The headings are:

1. General
2. Head
3. Neck (Soft Tissues) and Thorax
4. Back and Flank
5. Spine (Vertebral Column)
6. Abdomen
7. Shoulder
8. Humerus (Upper Arm) and Elbow
9. Forearm and Wrist
10. Hand and Fingers
11. Pelvis and Hip Joint
12. Femur (Thigh Region) and Knee Joint
13. Leg (Tibia and Fibula) and Ankle Joint
14. Foot and Toes
15. Application of Casts and Strapping
16. Endoscopy/Arthroscopy

You will note these headings following anatomical order from head to toe. The headings are further divided into subheadings based on procedures. The *CPT* is very redundant, breaking anatomical sites into procedures in the same order with each system. This lesson will provide an overall description that pertains to the entire subsection, then we will discuss procedures that are unusual or don’t fall into the common procedure category. Let’s define a few procedural subheadings that will help you code from the **Musculoskeletal System** in the **Surgery** section of the *CPT*. 
Musculoskeletal System Procedural Definitions

Incision: To cut open or into with a sharp instrument

Excision: To remove or cut out.

Introduction or Removal: Injection, aspiration, insertion, application, removal or adjustment.

Repair, Revision and/or Reconstruction: Restoring, re-ordering, or rebuilding damaged or diseased tissue.

Fracture and/or Dislocation: Treatment to repair a break in a bone or to return a bone to its proper position.

Manipulation: Under anesthesia, manually moving the body to restore function or proper range of motion.

Arthrodesis: The surgical fixation or fusing of a joint, as in fusing the vertebral interbody of the spine.

Amputation: Removing a limb or part of a limb.

Before you look at a few of the key headings in the Musculoskeletal System, let’s review information provided in the guidelines.

Guidelines

Fractures are coded by the types of treatment: closed, open and percutaneous. Understanding the treatments will assist you in accurate coding of the procedures.

A closed treatment means the site was not surgically opened for direct visualization during treatment. This type of treatment care can be done with or without manipulation. Manipulation is the process of using anatomic alignment and manual force to set fractures and/or dislocations. “Reduction” and “restoration” are terms that indicate manipulation. The process of immobilizing the bone in a splint or cast without having to align the fracture into proper position is without manipulation.
Surgically opening a site for direct visualization is termed **open treatment**. For fractures, it is important to note that the type of fracture (open or closed) does not have to correlate with the type of treatment (open or closed). You might have a greenstick fracture that requires open treatment to align the bone. Your diagnosis is a closed fracture while your treatment is open.

**Percutaneous skeletal fixation** is a fracture procedure that is neither open nor closed. Pins are placed across the fracture site, often with the help of x-rays.

Documentation is an important part of fracture and/or dislocation procedures. Similar to diagnostic coding, you will code to closed treatment unless open treatment is specifically documented. Unless anesthesia or manipulation is documented, you choose the code denoting without anesthesia or manipulation. Remember, if it’s not documented, it didn’t happen.

**Fracture Care Coding Tip**

The application and removal of the first cast is included in the fracture procedure code.

**General**

This subheading includes codes for **wound explorations** in cases of penetrating trauma, **replantation** of severed limbs and **grafts**. **Wound exploration** is necessary when the doctor has to actively examine the wound to see the extent of the damage. These codes are used for exploration in cases of trauma, such as gunshot and stab wounds. If the wound is simply repaired without exploration, you will use the repair codes found in the *Integumentary System*. **Replantation** is the reattachment of a specific body part, like a finger, arm or leg. This procedure includes debridement and the sutures to close the skin when reattaching the body part. When coding replantations, pay attention to whether the amputation was complete or incomplete. If it was incomplete, then you’ll need a repair code instead of a replantation code. **Grafting** is the surgical removal of a piece of tissue from one location and implanting it in another. Grafts can be from different spots on the same person or from a different person.

Before coding the next example, take a moment to read through the guidelines for each of these subheadings. Note the rules for when to use these codes and when you are directed to use different codes.
SUBJECTIVE
An 18-year-old male was brought to the emergency department after sustaining multiple stab wounds resulting from an altercation. Unable to obtain a history due to his unconscious state.

OBJECTIVE
Blood pressure 92/68. Patient is intubated with bilateral breath sounds. Ears normal. Examination limited to chest and leg wounds due to critical condition of the patient. Front leg reveals femoral artery laceration. Pressure is applied. Chest wound is enlarged for exploration to determine extent of the wound. Wound exploration reveals no obvious damage to the heart or lungs.

ASSESSMENT
Laceration of the femoral artery. Laceration to the chest. Multiple stab wounds.

PLAN
Patient will be admitted for surgical repair of lacerations.

In addition to the emergency department service, which we will discuss with the Evaluation and Management section, you will code for the wound exploration. To locate this code, turn in the Index to Exploration, Chest, Penetrating Wound for the tentative code of 20101. The code description in the main body of the CPT confirms that 20101 Exploration of penetrating wound (separate procedure); chest is the correct code.

Prosthesis Preparation

When you use codes 21076-21089 for the preparation of prosthetic devices, the physician or other qualified health care professional must document the design and preparation of the prosthesis as done by herself. If she just orders the design to be made by a lab, you would just code for the office visit.

Arthrodesis and Bone Grafts

An arthrodesis procedure deals with the cervical, thoracic and lumbar spine. This heading has a lot of guidelines, so be sure and read through them carefully. Let’s look at one tricky area: bone grafting and arthrodesis. To accurately code an arthrodesis, you must determine the approach (anterior or posterior), the area of the spine fused, and the number of interspaces. An interspace is the space between two similar structures. In this case, those two structures are the vertebrae. The codes in the Arthrodesis subheading are for a single interspace. If the procedure is performed on more than one interspace, you will apply the appropriate add-on code.
For instance, an anterior interbody arthrodesis of the T1-T2 and T2-T3 indicates two interspaces. The physician is fusing the vertebrae at T1 and T2 together, then fusing T2 and T3 together. To code the procedure at the T1-T2 level, you would use 22556. To indicate the additional interspace of the T2-T3, you use 22585 as well. You would assign 22556 and 22585 for this example.

Sometimes bone grafts and arthrodeses are performed in the same session. Often the vertebrae have enough bone to fuse the two together. In cases where there isn’t enough bone to fuse the vertebrae together, a bone graft is done to obtain bone to bridge the vertebrae together. Within the spine heading, bone grafting procedures are reported separately and in addition to arthrodesis. If the bone graft is performed after the arthrodesis, then you use codes 20930-20938 for the graft. Let’s look at an example of an arthrodesis with a bone graft:

**INDICATIONS FOR PROCEDURE**

This pleasant 52-year-old female was diagnosed with rheumatoid arthritis 5 years ago. She presents with severe spinal pain that is not relieved by drugs, splinting and physical therapy. She underwent arthroplasty 2 years ago, and it is now obvious arthrodesis is the next option. The patient understands that the fused joints will have no further motion, but pain problems should be permanently solved.

**PROCEDURE**

Following general anesthesia, the spine was prepped. A posterolateral arthrodesis was performed at the C6 through C7 level. Cartilage was removed from the ends of each bone, along with a surface layer of that bone. Morselized bone grafts taken from the patient’s iliac crest were used across the joint surfaces. The joint was then immobilized to help in the healing process.

The patient tolerated the procedure well with minimal loss of blood. Following an uneventful stay in the recovery room, the patient was discharged home.

To code this example, you will code for the posterolateral arthrodesis and the bone graft. First, let’s locate the code for the arthrodesis. In the Index, locate Arthrodesis, Vertebra, Cervical, Posterior/Posterolateral/Lateral Transverse for the tentative code range of 22590-22600. Turn to the main body of the CPT to review the guidelines and read the code description. A posterolateral technique of the cervical segment is indicated, so 22600 Arthrodesis, posterior or posterolateral technique, single level; cervical below C2 segment will be assigned for the arthrodesis.
Now you must code for the bone grafting. For accurate coding you need to know the type of graft. Your choices are *allograft* or *autograft*. The *allograft* method takes the bone graft from a cadaver donor that is frozen or freeze dried. The *autograft* method takes the bone graft from the patient, often at the ilium or fibula. In this case, code to autograft. In the *Index*, locate *Spine* and continue your search under *Autograft* and the tentative code 20937 for *Morselized*. Turn to the main body of the *CPT* to read the code description. **20937 Autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision)** is the correct code for the bone graft.

Finally, assign codes **22600** and **20937** for this example. Remember, 20937 is an add-on code so modifier 51 does not apply.

**Application of Casts and Strapping**

A *cast* is a rigid encasement for therapeutic purposes, while *strapping* is wrapping a body part in tape or an Ace bandage. According to the *CPT* guidelines, these codes are for the replacement of a cast or strapping during or after the period of follow-up care, or when the cast application or strapping is an initial service performed without a restorative treatment or procedure to stabilize or protect a fracture, injury or dislocation and/or to afford comfort to a patient.

**Casts and Strapping Coding Tip**

Remember, the application and removal of the first cast is included in the fracture procedure code.

**Endoscopy/Arthroscopy**

An *endoscopy* is a visual inspection of the interior of the body by means of an instrument called an endoscope. An *arthroscopy* is the examination of the interior of a joint with an instrument called an arthroscope. Whether the site is the shoulder or the elbow, the basic process of the procedure is the same. First, anesthesia is administered. Two to four small poke incisions are made around the surgical site. Sterile solution is pumped into the site to aid in visualization and cleanse the joint. The arthroscope is inserted, and the physician performs a diagnostic exam by visualizing the joint. Arthroscopic guidance allows the physician to complete the procedure, and the arthroscope is then removed. The diagnostic endoscopy or arthroscopy would be included under the surgical procedure and not coded separately.
All of the organs in the respiratory system help you breathe. The respiratory system includes the nose, larynx, trachea, bronchi and lungs. The pleural cavities are where the respiratory organs lie.

Please read Anatomy and Physiology, Chapter 7, The Respiratory System, for a better understanding of this section.
The *Respiratory System* subsection consists of five headings:

1. Nose
2. Accessory Sinuses
3. Larynx
4. Trachea and Bronchi
5. Lungs and Pleura

Once again, the *CPT* presents the respiratory headings by anatomical order, followed by the procedure type. The following defines the common procedures found within this subsection.

---

**Respiratory System Procedural Definitions**

- **Incision**: To cut open or into with a sharp instrument
- **Excision**: To remove or cut out.
- **Introduction**: The act of putting in or inserting.
- **Endoscopy**: Visual inspection of the interior of the body by means of an endoscope.
- **Repair**: Restoring damaged or diseased tissue.
- **Destruction**: Tissue elimination or dissection, excludes excisions.

---

Let’s take a closer look at some of the procedures found within the *Respiratory System* for a better understanding of coding.

**Foreign Body**

A *foreign body* is any object not normally found in the body. The *CPT* has codes for three types of removals from the nose. The first, 30300, is a simple procedure. While it may require a small incision, it can still be done in the office. The second, 30310, requires general anesthesia. And 30320 is the code for procedures that require complex nasal surgery.

**Endoscopy**

Remember, endoscopy is the visual inspection of the interior of the body by means of an instrument called an endoscope. When you're coding an endoscopy, it's important to code to the full extent of the procedure. Let’s say the doctor wants to use an endoscope to examine your bronchial tubes. She may start at your nose and proceed through your sinuses and trachea to get to your bronchial tubes. Always code for the farthest point.
Within the *Respiratory System*, you will note nasal/sinus endoscopy, laryngoscopy, tracheobronchoscopy, bronchoscopy and thorascopy all found within the endoscopy procedure. Each of these terms end with “scopy,” which means to view. The term “laryngo” just specifies it’s the larynx that you are viewing. To locate the procedure code you can locate *Endoscopy, Larynx* or simply locate *Laryngoscopy*.

The surgical endoscopy also includes a diagnostic endoscopy, for each subheading within the respiratory system. Let’s look at the following example to better understand this concept.

A patient diagnosed with mesothelioma has a diagnostic thorascopy of the lungs and pleural space to determine the extent of the disease. The physician confirms the mesothelioma is confined to the pleura and has not spread to surrounding organs and tissues. A parietal pleurectomy is performed to surgically remove the pleura of the lung.

In this example, the diagnostic thorascopy was necessary to determine if the pleurectomy could be performed, therefore diagnostic thorascopy is included in the surgical procedure. To code this example, locate *Thorascopy, Surgical, with Parietal Pleurectomy* for the tentative code of 32656. Turn to the main body of the *CPT* to review the guidelines and read the code description. You can assign 32656 *Thorascopy, surgical; with parietal pleurectomy* as the correct code.

The *CPT* gets easier with practice, so let’s review the *Musculoskeletal* and *Respiratory Systems* before moving to the next system.

---

**Step 9  Practice Exercise 32-2**

- Apply what you have learned about the *Musculoskeletal* and *Respiratory Systems* by coding the following.

  1. **Anterior interbody arthrodesis of the T1-T2 and T2-T3.**
     
     CPT: __________________________
     
     CPT: __________________________

  2. **Comminuted humeral condylar fracture with open treatment.**
     
     CPT: __________________________

  3. **Tendon sheath repair of the wrist.**
     
     CPT: __________________________
4. Radial and ulnar shaft fracture easily reduced and long-arm cast applied.
   CPT: __________________________

5. Strapping of 34-year-old patient’s ankle.
   CPT: __________________________

   CPT: __________________________

7. Direct laryngoscopy for removal of a penny.
   CPT: __________________________

8. A flexible bronchoscope is inserted through the mouth and advanced to the bronchus, where the bronchial alveolar are lavaged.
   CPT: __________________________

   CPT: __________________________

10. CPT Coding Challenge
    PREOPERATIVE DIAGNOSIS
    Multiple masses in lung, right lower lobe.

    POSTOPERATIVE DIAGNOSIS
    Same, pending pathology.

    PRIMARY PROCEDURE
    FIBEROPTIC BRONCHOSCOPY WITH TRANSBRONCHIAL BIOPSIES OF RIGHT LOWER LOBE OF LUNG.

    PROCEDURE
    This 75-year-old male was premedicated and then sedated in the preoperative area. He was then brought to the endoscopy suite. After adequate sedation, the bronchoscope was introduced. The distal portion of the trachea, the carina, and all airways were patent. The trachea and the carina were basically normal. The left lung was examined. All segments were patent. No masses were seen. The right lung was then examined. The upper and middle portions of the right lung were patent, and no masses were seen.

    CPT: __________________________

---

- Step 10 Review Practice Exercise 32-2

- Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
The cardiovascular system is the body’s supply and transportation network. It brings nutrients such as oxygen, glucose, amino acids and hormones to all the cells of the body and carries off waste products from cell metabolism throughout the body. The cardiovascular system includes the heart and blood vessels. Previously, you learned about various diseases that can affect the circulatory system. Now you will learn about the treatments provided by the physician to alleviate those diseases and disorders.

Please read Anatomy and Physiology, Chapter 5, The Cardiovascular System, for a better understanding of this section.

This subsection has two headings: (1) Heart and Pericardium, (2) Arteries and Veins. Pretty simple headings for such a complex system! However, there are a lot of subheadings. Instead of categories like incision and excision, the cardiovascular subsection features the site of the procedure or the name of the procedure performed. For example, under the heading Heart and Pericardium, you’ll find the subheading of Pericardium. This is the location, and the procedures done to the pericardium are listed.

Guidelines

This system contains a lot of guidelines at the beginning of each heading and subheading. There are even instructions within some code ranges. Always be sure to review the guidelines for the codes and sections you are using.

Heart and Pericardium

You’ll recall the heart is a special muscle that is a little larger than your clenched fist. It lies in your chest, just behind and to the left of your sternum. Your heart rests on the diaphragm and is surrounded laterally and posteriorly by the lungs. The pericardium is the fibroserous membrane covering the heart.

Let’s take a closer peek at some of the subheadings in this category.
A pacemaker is an electrical device that helps regulate the rhythm of the heartbeat. Every pacemaker system consists of the pulse generator, one or more leads, and an electrode for each lead. The pulse generator, which produces the pacing impulses, contains the battery and electronic circuitry. The battery within the pulse generator is the power behind the pacemaker. When the battery is out of energy, the entire pulse generator must be replaced. The leads are insulated wires that run from the pulse generator through a vein to the inside of a heart chamber or chambers. The pacemaker sends a tiny electrical signal, a pacing impulse. This impulse travels through the insulated wires of a pacing lead until it reaches the metal electrode at the tip of the lead. The electrode, which is in direct contact with the heart, delivers the electrical impulse to the heart. The electrical impulse causes the heart tissue to begin a heartbeat.

A single chamber pacemaker consists of a pulse generator and one lead. The one electrode can be pacing either the right atrium or the right ventricle. The right ventricle is the most common type.

A dual chamber pacemaker, which is the most common type of pacemaker, consists of a pulse generator and two leads. This type paces both the right atrium and the right ventricle and allows the pacemaker to monitor and deliver impulses to either or both of the heart chambers.

A cardioverter-defibrillator has a pulse generator, one or more leads, and an electrode for each lead. These components work very much like a pacemaker. However, the cardioverter-defibrillator is a device that senses when the heart is beating too fast and delivers an electrical shock to convert the fast rhythm to a normal rhythm.
Pacemaker Coding Tip
When replacing the pulse generator, select the code for the removal that includes the replacement of the new pulse generator.

Let’s take a moment to practice. Follow along with this pacemaker procedure example.

PREOPERATIVE DIAGNOSIS
Sick sinus syndrome.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
DUAL CHAMBER PACEMAKER AND ATRIAL AND VENTRICULAR LEADS.

INDICATIONS FOR PROCEDURE
This patient has been experiencing increasing episodes of sick sinus syndrome. The episodes are not controllable with medication. A dual-chamber pacemaker was recommended and discussed with the patient and his family. The patient and his family were informed of all potential complications, including infection, hematoma, pneumothorax, hemothorax, myocardial infarction, and possibly death. They have agreed to the procedure, and the patient signed the consent.

PROCEDURE
The patient was admitted to the cardiac catheterization lab and placed supine on the table. He was prepped, draped, and given local anesthesia. The leads were inserted transvenously through the subclavian vein with the leads positioned in the right atrial appendage for atrial pacing and the right ventricular apex for ventricular pacing. The leads were then attached to the pulse generator, which was inserted into the subcutaneous pocket below the clavicle. The pacemaker was tested and all evidence leads to proper placement with effective pacing. The patient tolerated the procedure very well with minimal blood loss. He was taken to the postanesthesia unit for observation and discharge.

The procedure performed was the insertion of a dual chamber pacemaker. To locate this code, turn to Pacemaker, Heart in the Index. Now find Insertion with the tentative code range of 33206-33208. Turn to the body of the CPT to review the guidelines and read the code description. Looking at the documentation, the pacemaker wires are placed in the atrial and ventricular areas, which is code 33208. You will assign 33208 Insertion of new or replacement of permanent pacemaker with transvenous electrode(s); atrial and ventricular for this procedure.
Cardiac Valves

Previously, you learned that **rheumatic heart disease** is the condition that develops when the heart valves are damaged by rheumatic fever. This subheading of the *CPT* deals with procedures that will correct the damaged heart valves. You’ll recall the four valves of the heart are called the aortic valve, mitral valve, tricuspid valve and pulmonary valve. To regulate the blood flow from one chamber of the heart to the next, these valves open and close. When the valve opening narrows, different types of procedures may be performed to enlarge the valve opening, which improves the valve function as well as blood flow.

Let’s take a look at an example of the common procedures you will find under Cardiac Valves.

- **Valvectomy – 33460** The tricuspid valve tissue is completely excised, or cut out.
- **Valvotomy – 33420** Scar tissue between the mitral valve leaflets is cut.
- **Valvuloplasty – 33400** Scar tissue between the aorta valve leaflets is cut.
- **Replacement – 33475** The pulmonary valve leaflets are removed and replaced with an artificial valve.

**Cardiac Valve Coding Tip**

Carefully select tentative codes in the Index, as the spelling of the procedure and code descriptions are very similar.
Coronary Artery Bypass Graft (CABG)

When the muscles in the heart don’t get enough blood, they can die. Ischemic heart disease is any of a group of acute or chronic cardiac disabilities resulting from insufficient supply of oxygenated blood to the heart. A coronary artery bypass graft (CABG) is the surgery done to bypass the clogged arteries to restore the blood supply to the heart muscle. To accurately code a CABG, you must determine whether an artery, a vein, or both are being used as the bypass graft. Look up Coronary Artery Bypass Graft (CABG) in your CPT Index. You’ll see quite a few options listed. Once you select the tentative code range based on the type of graft, your code will reflect the number of grafts performed. Let’s work through a quick example.

The medical chart shows a coronary artery bypass using two arterial grafts. Locate the pathway in the Index, which would be Coronary Artery Bypass Graft (CABG), Arterial, Bypass. This provides the tentative code range of 33533-33536. Turn to the body of the CPT to review the guidelines and read the code descriptions. The documentation indicates two arterial grafts were used. Code 33534 Coronary artery bypass, using arterial graft(s); 2 coronary arterial grafts would be correct for this example.

Be sure to note, the guidelines tell you that the procedure of the artery grafting is included in the codes 33533-33536 and should not be reported separately.

Nice job! You’re ready to move on to arteries and veins.

Arteries and Veins

The first step towards coding for arterial and venous procedures is to be familiar with your anatomy. Make use of the tools at your disposal. As you read through the guidelines in artery and vein categories, use your Anatomy and Physiology book and your flashcards to look up anatomical terms you aren’t familiar with.

The second step towards coding in this subsection is to understand Vascular Families. Visualize a tree with branches. There is the main trunk from which large branches grow. These large branches then grow smaller branches. Vascular families are similar, in that a main vessel is present and then other vessels branch off of the main vessel. Vascular families are all connected to the main vessel. You also have Appendix L, Vascular Families, to assist you!

When you’re coding for a catheterization procedure, you need to know where the catheter starts as well as where it ends up. With non-selective catheterization, the needle is placed directly into an artery and not manipulated any further. With selective catheterization, once the needle is inserted, it is moved or guided to another part of the arterial system. The catheter can be guided to the first, second or third order. The first order is the main artery into which the needle was inserted; the second order is the branch off the main artery; and the third order is the branch off the second branch. As with an endoscopy, you will code to the fullest extent of the placement.
Endovascular Repair of Abdominal Aortic Aneurysm

An endovascular repair requires the work of both a vascular surgeon and a radiologist. The guidelines offer information on coding the fluoroscopic guidance in conjunction with the endovascular aneurysm repair. An aneurysm is the dilation of a cardiac chamber usually due to a weakness of the wall of the heart. For the procedure, an incision is made at the groin and a catheter is passed into the femoral artery and directed to the aortic aneurysm. The physician passes a stent graft through the catheter. The stent graft is advanced to the aneurysm, then opened, creating new walls in the blood vessel through which blood flows.

Repair Blood Vessel

Repairing a blood vessel is categorized as 1) direct, 2) with vein graft or 3) with graft other than vein. It is then divided by anatomical site. When a blood vessel is sutured with existing veins, it is a direct repair. If the vessel defect is too extensive for a direct repair, the physician repairs the injured vessel with a length of vein harvested from another site in the body or with a cadaver vein. This is a repair with vein graft. A repair with graft other than vein is when a synthetic vein is inserted.

Let's look at what type of procedure a surgeon performed to repair the femoral artery of a multiple stab wound victim.

<table>
<thead>
<tr>
<th>PREOPERATIVE DIAGNOSIS</th>
<th>POSTOPERATIVE DIAGNOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple stab wounds with laceration of the superficial femoral artery.</td>
<td>Same.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIMARY PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPLORATION WITH REPAIR OF SUPERFICIAL FEMORAL ARTERY.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>This 18-year-old male was brought to the operating room after all procedure risks were discussed with the family members, and the father signed an informed consent. The patient was unconscious, thus he was unable to sign the consent. The patient was placed supine on the table, and the anesthesiologist induced general anesthesia. The patient sustained multiple stab wounds resulting from an altercation. My portion of the procedure was to repair the femoral artery laceration. Two other surgeons will be treating the other wounds. Dissection was carried down through the subcutaneous tissue. The superficial femoral artery was identified, and at this point, bleeding from the artery was encountered. The laceration was visible, but the incision was extended to get adequate control of the injury. Then, 5-0 Prolene sutures were used to over sew the laceration on the anterior wall of the femoral artery. The artery was flushed with a heparinized saline solution, and the repair was patent. The procedure was completed, and the case was turned over to the 2 other surgeons.</td>
</tr>
</tbody>
</table>
Let’s think about the femoral artery. An artery is a blood vessel that takes the blood away from the heart. And the femur is part of the lower extremity. Locate Repair, Blood Vessel, Lower Extremity for the tentative code 35226. Now turn to the main body of the CPT and read that code description. You’ll determine 35226 Repair blood vessel, direct; lower extremity is the correct code for the operative report. Nice work!

Step 12  Hemic and Lymphatic Systems 38100-38999

- The hemic (blood) and lymphatic system are grouped together in the CPT. The lymphatic system is a collection of vessels, storage ducts (lymph nodes) and organs that produce, save and circulate lymph. Lymph is a fluid which contains white blood cells. White blood cells are an important part of your immune system. The spleen, which filters blood, is made of lymphatic tissue.

The Hemic and Lymphatic Systems subsection consists of three headings:

1. Spleen
2. General
3. Lymph Nodes and Lymphatic Channels

The number of procedures found within this subsection is limited. Let’s take the time to examine some procedures in each of the headings.
Spleen

The spleen is a large vascular lymphatic organ lying in the upper part of the abdominal cavity on the left side, between the stomach and diaphragm. A diseased or damaged spleen may require part or all of the spleen to be removed, or a splenectomy. A laparoscopic splenectomy—38120—consists of making small incisions in the abdominal wall and using a laparoscope to perform the procedure. When it is documented that a midline incision is made and the spleen is exposed, a code in the range of 38100-38102 will be assigned for the procedure.

A ruptured spleen is a life-threatening condition that requires immediate surgical attention. A severe blow to the stomach area can rupture the spleen, tearing its covering and the tissue inside. This rupture allows large amounts of blood into the abdominal cavity, causing pain, shock and possibly death. Repair of the spleen, or a splenorrhaphy, consists of suturing the laceration as well as removing any damaged segments of the spleen if necessary. The wound is irrigated, and the incision is closed using sutures or staples.

Bone Marrow or Stem Cell Services/Procedures

Bone marrow is the soft, spongy, inner part of bones. Early blood cells are called stem cells, which originate in the marrow of bones. Leukemia is a disease of the bone marrow that requires chemotherapy followed by a bone marrow transplant. Transplants can be allogeneic or autologous. For an autologous transplant, cells will be collected from the patient’s own bone marrow. A transplant using cells from a family member, unrelated donor or cord blood unit is called an allogeneic transplant.

Let’s say a patient is being seen for a bone marrow transplant using previously harvested bone marrow from the patient and you are to code that procedure. Would you code the harvesting of the bone marrow? No, it was previously done. You would code for the transplantation. Locate Transplantation, Bone Marrow in the Index for the tentative code range of 38240-38242. The bone marrow was harvested from the patient, which is autologous. Code 38241 Hematopoietic progenitor cell (HPC); autologous transplantation is the correct code to assign.

Lymph Nodes and Lymphatic Channels

A lymphadenectomy, or excision of the lymph nodes, can be classified as limited or radical. A limited lymphadenectomy consists of removal of the lymph nodes alone. When a limited lymphadenectomy is combined with a prostatectomy, you would only code for the prostatectomy. A radical lymphadenectomy not only removes the lymph nodes, but the glands and surrounding tissue as well.
Step 13  Mediastinum and Diaphragm 39000-39599

This short subsection consists of two headings: (1) Mediastinum (the space between the two lungs), and (2) Diaphragm (the muscle that divides the abdominal and chest cavity).

The common procedures for the mediastinum are incision, excision/resection and endoscopy. The incision code is based on the surgical approach, either cervical or transthoracic will be documented. You will note foreign body removal is located with the incision codes. The excision/resection codes are for cysts and tumors.

The procedures for the diaphragm are focused on repairs. You will use these codes to repair a laceration or hernia. For an imbrication of the diaphragm, the surgeon uses connective tissue to stitch folds into the diaphragm to restore it to its original position.

We’ve covered quite a bit of information since you did the last Practice Exercise. Let’s stop and give you a chance to review the material with the following Practice Exercise.

Step 14  Practice Exercise 32-3

Apply what you have learned about the Cardiovascular, Hemic and Lymphatic Systems, and the Mediastinum and Diaphragm by coding the following.

1. Battery replacement for a dual chamber pacemaker.
   CPT: ________________________________

2. Mitral valve valvuloplasty with cardiopulmonary bypass.
   CPT: ________________________________

3. Direct repair of blood vessel located in the index finger.
   CPT: ________________________________

4. Withdrawal of blood for diagnosis via arterial puncture.
   CPT: ________________________________

5. Laparoscopic splenectomy.
   CPT: ________________________________

   CPT: ________________________________
7. CPT Coding Challenge

PREOPERATIVE DIAGNOSIS
Leukocytosis.

POSTOPERATIVE DIAGNOSIS
Same, pending pathology.

PRIMARY PROCEDURE
ASPIRATION OF BONE MARROW FROM THE RIGHT ANTERIOR ILIAC CREST.

PROCEDURE
After adequate general endotracheal anesthesia had been obtained, the patient was placed on the operating table in the supine position. The right anterior iliac crest was prepared in a routine sterile fashion. A needle was inserted in the right anterior crest, and 2.5 mL of bone marrow aspirate was obtained. Appropriate dressing was applied after which the patient was taken to the recovery room in satisfactory condition. There were no operative complications.

CPT: ____________________________

Step 15  Review Practice Exercise 32-3

- Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 16  Digestive System 40490-49999

- The digestive system is all about food. It begins with the mouth and ends at the anus. As expected, this subsection is arranged anatomically from the top down, beginning with the lips.

Please read Anatomy and Physiology, Chapter 8, The Gastrointestinal System, for a better understanding of this section.
The *Digestive System* subsection includes 18 headings:

1. Lips
2. Vestibule of Mouth
3. Tongue and Floor of Mouth
4. Dentoalveolar Structures
5. Palate and Uvula
6. Salivary Glands and Ducts
7. Pharynx, Adenoids, and Tonsils
8. Esophagus
9. Stomach
10. Intestines (Except Rectum)
11. Meckel’s Diverticulum and the Mesentery
12. Appendix
13. Rectum
14. Anus
15. Liver
16. Biliary Tract
17. Pancreas
18. Abdomen, Peritoneum, and Omentum

The *Digestive System* headings contain the various procedures. The following defines the common procedures found within this subsection.

---

**Digestive System Procedural Definitions**

- **Incision**: To cut open or into with a sharp instrument.
- **Excision/Destruction**: To remove or cut out.
- **Introduction**: The act of putting in or inserting.
- **Endoscopy**: Visual inspection of the interior of the body by means of an endoscope.
- **Laparoscopy**: An examination of the inside of the peritoneum with a laparoscope.
- **Repair**: Restoring damaged or diseased tissue.

---

Now that you know the arrangement of this subsection and some common procedures, let’s look at a few key parts of the digestive system subsection.
Appendectomy

An **appendectomy** is the surgical removal of the appendix. This procedure might be incidental during another intra-abdominal surgery. For instance, a patient may be having a cholecystectomy to remove the gallbladder. During surgery, the appendix is noted to be gangrenous and is removed as well. The surgeon didn’t plan on taking the appendix out, but the findings at the time of surgery required the removal. As the healthcare document specialist, you will code **47600 Cholecystectomy** and **44955-52 Appendectomy; when done for indicated purpose at time of other major procedure (not as separate procedure) (List separately in addition to code for primary procedure) – Reduced Service** for the operation. However, if there is no justification for the removal of the appendix, only the primary procedure is coded.

Remember, **appendicitis** is inflammation of the appendix. An appendectomy may be performed to remove the inflamed appendix. You will code **44950** when an abdominal cut is made to open for the removal. The physician could perform a laparoscopic appendectomy, in which case you would code **44970**.

There is a specific code for an appendectomy when the infection and inflammation causes the appendix to rupture. The documentation of “peritonitis” is one way of identifying the rupture. You will apply **44960 Appendectomy; for ruptured appendix with abscess or generalized peritonitis** for an appendectomy with peritonitis.

Endoscopic Procedures

Endoscopic procedures can be found at various anatomical sites within the digestive system and are coded to the extent the scope has been passed. It may go down through the mouth or up through the anus to gain access to the digestive site for the procedure.

Endoscopies for the rectum can be divided into three types:

**Proctosigmoidoscopy**: An examination of the rectum and sigmoid colon.

**Sigmoidoscopy**: An examination of the rectum and sigmoid colon, which may include looking at part of the descending colon.

**Colonoscopy**: An examination of the entire colon, from the rectum up to the cecum, which may include looking at the terminal ileum.

---

**Endoscopic Procedural Coding Tip**

A diagnostic endoscopy can be performed by itself, but a diagnostic endoscopy incidental to a surgical endoscopy will not be coded as a separate procedure.
Hernia Repair

Take a moment to read through the guidelines pertaining to Hernioplasty, Herniorrhaphy, Herniotomy procedures (found just before code 49491). A hernia occurs when a body part protrudes through the tissues which are supposed to hold it in. Hernia repairs are often categorized by location (inguinal), type (incisional), frequency (recurrent) and age.

Let’s take a look at the following example.

PREOPERATIVE DIAGNOSIS
Inguinal hernia.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
INGUINAL HERNIORRHAPHY.

INDICATIONS FOR PROCEDURE
The patient is a 16-year-old male who had come in for a sports-related physical. In preparation for football, he has been lifting weights. A week before he was seen, he noticed a bulge in his scrotum. Since the pain was minor, he waited for his scheduled visit with his doctor to have it checked.

PROCEDURE
The patient was placed in a supine position on the table. Following general anesthesia, he was prepped and draped. An incision was made in the abdomen. The abdominal muscles were separated, and the peritoneal cavity was opened. The hernia was located and repaired. The spermatic cord remained intact without injury. The skin was then closed with sutures. There was minimal blood loss. Sutures will be removed in about 1 week. Postoperative care and precautions were explained to the parents.

To code this inguinal hernia repair, locate Repair, Hernia, Inguinal for the tentative codes of 49491-49521. Turn to the main body of the CPT to review the guidelines and read the code descriptions to determine the correct code for this operative report. Codes 49491 through 49501 indicate for infants or age 6 months to under 5 years. This is a 16-year-old patient, so code 49505 Repair initial inguinal hernia, age 5 years or older; reducible is the correct code.

Hernia Repair Coding Tip
Codes 49495-49611 are for unilateral hernias. If you’re coding bilateral hernias, you need to apply modifier 50.
The urinary system filters the blood and produces urine. It includes the kidneys, ureters, bladder and urethra, which are the four headings to this subsection.

Within each of these four headings, you will find the following common procedures.

### Urinary System Procedural Definitions

- **Incision**: To cut open or into with a sharp instrument.
- **Excision**: To remove or cut out.
- **Introduction**: The act of putting in or inserting.
- **Repair**: Restoring damaged or diseased tissue.
- **Laproscopy**: An examination of the inside of the peritoneum with a laparoscope.
- **Endoscopy**: Visual inspection of a cavity of the body by means of an endoscope.

Let’s finish up this lesson with a quick look into some of the procedures found in the Urinary System.
Cystourethroscopy

An endoscope, as you know, is a tool for looking inside an organ. A cystoscope looks inside the bladder. A urethroscope looks inside the urethra. And a cystourethroscope—yes, you guessed it!—looks inside both the bladder and the urethra. A cystourethroscopy is useful to determine the presence of interstitial cystitis, an inflammation of the bladder. When coding for a cystourethroscopy with an incision of the urethra its important to note the codes are specific to gender. Code 52270 is female specific, while 52275 is male specific. Let’s take a look at an example of a cystourethroscopy in action.

PREOPERATIVE DIAGNOSIS
Left urethral stone.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
CYSTOURETHROSCOPY, URETERAL DILATION, AND URETHROSCOPY WITH STONE EXTRACTION.

PROCEDURE
After general anesthesia was complete, the patient was placed in the dorsal lithotomy position. The genital area was prepped and draped. The cystourtheroscopy was unremarkable. Under direct vision, a 0.035 inch guide wire was inserted into the right ureter to the renal pelvis. A 4 cm 12 French ureteral balloon dilator was inserted over the guide wire, and the lower ureter was dilated. After the dilation was accomplished, it was removed from the guide wire, and the urethroscope was inserted into the ureter. The stone could be seen above the ureterovesical junction. It was engaged into a Segre basket and gradually removed. Ureteroscopy was done. There was some redness of the ureteral vault, but otherwise unremarkable. The bladder was drained, and the patient was sent to the recovery room.

To code this operation, locate Cystourethroscopy, Removal, Calculus for the tentative codes 52310, 52315, 52320, 52325 and 52352. Now turn to the main body of the CPT to review the guidelines and read the code descriptions to determine the correct code. The stone was seen in the ureterovesical junction, not the urethra or bladder, so codes 52310 and 52315 are not correct. The documentation indicates the use of a ureteroscopy. Codes 52320 and 52325 do not note its use in the code description. However, the ureteroscopy is noted with code 52352. You would assign 52352 Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with removal or manipulation of calculus (ureteral catheterization is included) for the documented procedure in the operative report.

You’ve now completed nine of the 19 subsections of the Surgery section! Before you complete the Mail-in Quiz, take a few minutes to review the Digestive and Urinary Systems, then complete the Practice Exercise to reinforce what you have learned.
Apply what you have learned about the Digestive and Urinary Systems by coding the following.

1. Palatoplasty for hard cleft palate.
   CPT: ____________________________

2. Colorrhaphy of the large intestine for perforated ulcer with colostomy.
   CPT: ____________________________

3. Flexible sigmoidoscopy, with three biopsies.
   CPT: ____________________________

4. Cryosurgery for the destruction of a lesion located on the anus.
   CPT: ____________________________

5. Cholecystectomy with cholangiography.
   CPT: ____________________________

6. Laparoscopic ureteroneocystostomy with cystoscopy and ureteral stent placement.
   CPT: ____________________________

   CPT: ____________________________
8. CPT Coding Challenge

PREOPERATIVE DIAGNOSIS
Epigastric abdominal pain.

POSTOPERATIVE DIAGNOSIS
Epigastric abdominal pain due to gastritis, gastric ulceration and duodenal ulceration.

PRIMARY PROCEDURE
ESOPHAGOGASTRODUODENOSCOPY WITH BIOPSY.

PROCEDURE
Following consent, the patient was brought to the endoscopy suite and placed in the sitting position where he received Hurricane spray to his oropharynx. The patient then underwent a 4% lidocaine gargle. The patient was placed in the left lateral decubitus position where a bite block was placed between his incisors. The Olympus video gastroscope was placed and advanced under visualization down through the oropharynx, the proximal then distal esophagus, through the gastroesophageal junction, and into the gastric body and duodenum via the pylorus. The endoscope was withdrawn back into the gastric body, retroflexed with visualization of the gastric fundus. The endoscope was then straightened and withdrawn completely under suction. The patient tolerated the procedure very well.

CPT: ____________________________

Step 19 Review Practice Exercise 32-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes that you may have made.

Step 20 Lesson Summary

What do you think of surgical procedure coding so far? Are you beginning to see how everything you learned in your medical terminology, anatomy and physiology and diagnostic coding lessons relates to the procedure codes?

In this lesson, we covered the first half of the Surgery section of the CPT. You learned about the subheadings and common procedures in each heading. We showed you how to use the Index to locate tentative codes. You then reviewed guidelines and read code descriptions to determine the correct procedure code. And throughout the lesson were examples and Practice Exercises to give you more chances to code as you moved through the material. This was a challenging lesson, but you made it through. We covered a lot of information here, and this is your first real attempt at CPT coding, so it’s only natural to have questions. Reread the parts you found confusing, and be sure to contact your instructor with any questions you still have. Keep up the good work!
Step 21  Mail-in Quiz 23

Follow the steps to complete the Quiz.

a. Be sure you’ve mastered the instruction and the Practice Exercises that this Quiz covers.

b. Mark your answers on the worksheet copy of this Quiz. Remember to check your answers with the lesson content. The worksheet copy includes the detailed instructions for this Quiz.

c. When you’ve finished, transfer your answers to the Mail-in Quiz Cover Sheet included in this course. Use only blue or black ink on your Quiz Cover Sheet and **print in upper and lower case letters**. Red ink is unacceptable. You must **type or print** all answers so they can be read easily by the instructors. Any answers that cannot be read will be marked wrong.

d. **Important!** Please fill in all information requested on your Quiz Cover Sheet or when you submit your Quiz via fax. If you e-mail your Quiz, include your name, address, student ID number and program code.

e. Submit your Quiz to the school. Please note, send in your Quiz **once** either through mail, e-mail or fax.

Mail-in Quiz 23

Part 1 Anatomy & Physiology

Choose the best answer from the choices provided. Each item is worth 2 points.

1. The humerus, femur and phalanges are examples of ____ bones.
   a. sesamoid
   b. cartilaginous
   c. flat
   d. long

2. The dermis is thinnest ____.
   a. over the palms
   b. in the eyelids
   c. over the soles of the feet
   d. in the nail body
3. To stop the backward flow of blood in the heart, there are _____ valves at the entrances and exits to the ventricles.
   a. one-way
   b. obstructive
   c. occipital
   d. two-way

4. Permanent to fatal damage can occur to the heart and brain if the body as a whole is without oxygen for more than ____ minutes.
   a. one to three
   b. two to four
   c. five to seven
   d. seven to nine
   e. three to five

5. The esophagus extends from the ____.
   a. phalanges to the sternum
   b. phalanges to the stomach
   c. pharynx to the stomach
   d. pharynx to the stapes

**Part 2 Multiple Choice**

Choose the best answer for each of the following. Each item is worth 2 points.

6. Which of the following statements about unbundling is true? _____
   a. Unbundling is a form of fraud.
   b. It is the process of coding individual pieces of a service rather than coding a single code that includes all services.
   c. Unbundling is like charging someone for six individual sodas instead of one six pack.
   d. All of the above.

7. All of the “regular CPT codes” fall into what category of codes? _____
   a. Category III
   b. Category II
   c. Category I
   d. None of the above
8. Look up code 27725 in your CPT manual. How do you read this procedure? 
   a. Repair of nonunion or malunion, tibia; without graft, by synostosis, with fibula, any method.
   b. Repair of nonunion or malunion, tibia; without graft, with sliding graft, with iliac or other autograft, by synostosis, with fibula, any method.
   c. Repair of nonunion or malunion, tibia; by synostosis, with fibula, any method.
   d. Repair of nonunion or malunion, tibia; without graft, (eg, compression technique) by synostosis, with fibula, any method.

9. The six main sections are divided into 
   a. sections, subsection and categories
   b. subsections, headings and subheadings
   c. main terms and subterms
   d. anatomical sites

10. Which appendix contains a summary of additions, deletions and revisions? 
    a. Appendix B
    b. Appendix C
    c. Appendix E
    d. Appendix G

11. In the Index, code numbers can be listed by 
    a. multiple codes using a comma
    b. the specific code
    c. range of codes using a hyphen
    d. all of the above

12. Which section is a mini-guide to the manual? 
    a. The introduction
    b. The table of contents
    c. The index
    d. All of the above
13. The period of time following the surgical procedures is called the _____.
   a. recovery period
   b. global surgery period
   c. time off without pay
   d. postsurgical time

14. Procedural main terms can be _____.
   a. an anatomical site
   b. a synonym
   c. a disease
   d. all of the above

15. Which is not a true statement about Category II Codes? _____.
   a. These codes are optional.
   b. Category II Codes are a special collection of codes used by providers to track and measure performance internally.
   c. These codes are used by insurance companies to determine reimbursement.
   d. Physicians use them to see just how much work they’re doing for certain consultations.

16. Locate the page for code 25565 and identify the heading. _____.
   a. Surgery
   b. Forearm and Wrist
   c. Musculoskeletal System
   d. Fracture and/or Dislocation

17. Locate the page for code 69200 and identify the subheading. _____.
   a. Removal
   b. Surgery
   c. External Ear
   d. Auditory System

18. Locate the page for code 33120 and identify the heading. _____.
   a. Cardiac Tumor
   b. Cardiovascular System
   c. Heart and Pericardium
   d. Surgery
19. Locate the page for code 12001 and identify the subsection. _____
   a. Surgery
   b. Integumentary System
   c. Repair (Closure)
   d. Repair—Simple

20. Locate the page for code 63600 and identify the subheading. _____
   a. Nervous System
   b. Spine and Spinal Cord
   c. Surgery
   d. Stereotaxis

21. Hernia repairs are often categorized by _____.
   a. type
   b. frequency
   c. location
   d. all of the above

22. The accurate code(s) to assign for shaving two dermal lesions, one 0.5 cm lesion on the arm and one 0.5 cm lesion on the hand would be _____.
   a. 11300 11305-51
   b. 11306
   c. 11305 11300
   d. 11301

23. A ____ is a device that senses when the heart is beating too fast and delivers an electrical shock to convert the fast rhythm to a normal rhythm.
   a. single chamber pacemaker
   b. dual chamber pacemaker
   c. cardioverter-defibrillator
   d. pulse generator

24. Which is not a true statement about coding breast procedures from the integumentary system? _____
   a. Only a portion of the lesion is removed with incisional biopsies.
   b. Breast codes reflect bilateral procedures, as there are two breasts.
   c. With excisional biopsies, the entire lesion is removed.
   d. None of the above.
25. What is the correct procedure code for the control of a simple anterior nasal hemorrhage? ____
   a. 31238
   b. 30903
   c. 30901
   d. 30905

26. If a fracture care procedure is not documented as open or closed treatment, you would code to ____.
   a. percutaneous skeletal fixation
   b. open treatment
   c. closed treatment
   d. dislocation

27. A ____ looks inside both the bladder and the urethra.
   a. cystoscope
   b. cystourethroscope
   c. urethroscope
   d. none of the above

28. Turn to code 11771 in the CPT manual. What is the description for this code? ____
   a. Extensive
   b. Excision of pilonidal cyst or sinus; simple or extensive
   c. Excision of pilonidal cyst or sinus; extensive
   d. none of the above

29. Which is a true statement of a pulse generator? ____
   a. The battery within the pulse generator is the power behind the pacemaker.
   b. The pulse generator produces the pacing impulses for the pacemaker.
   c. When the battery is out of energy, the entire pulse generator must be replaced.
   d. All of the above.

30. What is the correct procedure code for the removal of a bead located in the nose? ____
   a. 30300
   b. 30310
   c. 30320
   d. None of the above
31. Superficial wounds that require a simple one layer closure, includes local anesthesia, are classified as _____.
   a. Repair—Simple
   b. Repair—Intermediate
   c. Repair—Complex
   d. dehiscence

32. Vascular families in the cardiovascular system are similar to a _____.
   a. cluster of grapes
   b. tree with branches
   c. sunflower
   d. none of the above

33. Cells are collected from the patient’s own bone marrow for this type of transplant. _____.
   a. Autologous
   b. Allogeneic
   c. Autograft
   d. Allograft

34. For the Integumentary System, under Repair (Closure), when multiple wounds in the same classification are repaired, you _____.
   a. code each wound separately
   b. add together those wounds in the same groupings
   c. locate the code for the repair of multiple wounds
   d. none of the above

35. When a surgeon decides to remove the appendix during another intra-abdominal surgery, with no justification for the appendectomy, you would code _____.
   a. 44955 in addition to the primary procedure
   b. 44950 in addition to the primary procedure
   c. the primary procedure
   d. 44955

36. Fine needle aspiration is the removal of a ____ from a cyst.
   a. gas
   b. cluster of cells
   c. fluid
   d. all of the above
37. _____ is an examination of the entire colon, from the rectum up to the cecum, which may include looking at the terminal ileum.
   a. Sigmoidoscopy
   b. Proctosigmoidoscopy
   c. Colonoscopy
   d. None of the above

38. When the medical documentation does not specify the incision and drainage procedure as complicated or featured multiple incisions and drainage, you will _____.
   a. code to complicated
   b. code to simple or single
   c. call the patient for the information
   d. not code a procedure at all

39. Which is not a true statement of manipulation in the Musculoskeletal System? _____
   a. It is the process of immobilizing the bone in a splint or cast without having to align the fracture into proper position.
   b. “Reduction” and “restoration” are terms that indicate manipulation.
   c. It is the process of using anatomic alignment and manual force to set fractures and/or dislocations.
   d. None of the above.

40. When 20 skin tags are removed by scissors, what code(s) would you assign? ________________
   a. 11201 x 2
   b. 11200 11201
   c. 11200
   d. 11201

Quiz continues »
Part 3 CPT Coding

Read the following scenarios. Following the steps to CPT coding, use the surgery procedure codes from General through the Urinary System to assign the accurate CPT code. Each CPT code is worth 4 points.

41. Scenario #1

PREOPERATIVE DIAGNOSIS
Recurrent pleural effusions with exacerbation of congestive heart failure.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
THERAPEUTIC THORACENTESIS.

PROCEDURE
With the patient appropriately prepped and the area marked by ultrasound prior to procedure, the site was anesthetized with 15 mL of 1% lidocaine. A 21-gauge caliber needle was inserted into the pleural space. Approximately 20 mL of fluid was removed from the pleural space. Blood gases were drawn, and results indicated a remarkable improvement. A postoperative x-ray was taken, and signs of a pneumothorax were negative. The patient tolerated the procedure well.

CPT code: _______________________

42. Scenario #2

PREOPERATIVE DIAGNOSIS
A 90% carotid stenosis, right side.

POSTOPERATIVE DIAGNOSIS
A 90% carotid stenosis, right side.

PRIMARY PROCEDURE
RIGHT CAROTID THROMBOENDARTERECTOMY.

DESCRIPTION
This 65-year-old patient was brought to the operating room and placed supine on the table. Under general anesthesia, the patient’s neck was prepped and draped on the right side. An incision was made across the medial border of the sternocleidomastoid muscle, and the platysma was divided. The common carotid artery was located. The external and internal carotid arteries were isolated, and loops were placed around them. Clamps were placed on the internal, common, and external carotid arteries. The stenosing atherosclerotic plaque was removed. The artery was sutured at the distal end, the proximal end, and the meeting in the middle. This caused the desired backbleed, and the artery was then closed. The wound was then closed in layers after placing a Hemovac drain. The patient tolerated the procedure well and was discharged to the postanesthesia unit.

CPT code: _______________________
43. **Scenario #3**

**PREOPERATIVE DIAGNOSIS**
Lymph node metastases to upper mediastinum.

**POSTOPERATIVE DIAGNOSIS**
Same.

**PRIMARY PROCEDURE**
MEDIASTINOSCOPY.

**PROCEDURE**
The patient was placed in the supine position, neck extended, and general anesthesia given. A transverse incision was made in the suprasternal notch on the right side. The mediastinoscope was introduced. A dissection was performed in the pretracheal fascia and extended under direct vision to the regional lymph nodes, where the biopsy was performed. Specimen was sent to laboratory, and positive results were reported. Hemostasis was noted with minimal blood loss. Patient tolerated procedure well. Recovery was uneventful.

**CPT code:** ______________

44. **Scenario #4**

**PREOPERATIVE DIAGNOSIS**
Rectal pain.

**POSTOPERATIVE DIAGNOSIS**
Perirectal abscess.

**PRIMARY PROCEDURE**
I&D OF PERIRECTAL ABSCESS.

**DESCRIPTION OF PROCEDURE**
After informed consent, the patient was brought to the operating room and placed in the lithotomy position. After adequate induction of anesthesia, the rectal area was prepped and draped in a sterile manner. Examination of the rectal area revealed no evidence of fissure, but obvious abscess was present. The skin around the abscess was palpated. The anus was then dilated and the speculum introduced. With mild pressure, the abscess was ruptured by incision and drained of purulent material. The abscess appeared to be in between the subcutaneous tissue and the sphincters. The area was completely drained, irrigated and packed thoroughly with gauze. The patient tolerated the procedure well and was discharged to the postanesthesia care unit.

**CPT code:** ______________

Quiz continues ➤
45. **Scenario #5**

**PREOPERATIVE DIAGNOSIS**
Medial and lateral meniscus tears, left knee.

**POSTOPERATIVE DIAGNOSIS**
Same.

**PRIMARY PROCEDURE**
ARTHROSCOPY WITH MEDIAL AND LATERAL MENISCECTOMIES, LEFT KNEE.

**INDICATIONS FOR PROCEDURE**
The patient felt a pop in his knee while moving furniture at the nursing home where he is employed.

**PROCEDURE**
The patient was placed on the operating table in the supine position under general anesthesia. The left knee was prepped and draped in the usual manner. Ports were established in the knee, and the joint was inflated. Arthroscopy was carried out beginning in the inferolateral portal. After initial exploration, the medial compartment was explored. The arthroscopy exposed the meniscus that revealed a tear. The torn portion was removed with forceps. Attention was then turned to the lateral compartment that also revealed a tear in the lateral meniscus. The torn portion was removed with forceps. After completion of the meniscectomies, there were no other significant findings. The knee joint was thoroughly irrigated, and the instruments were removed. Dressing was applied. The patient tolerated the procedure well and left the operating room in good condition.

**CPT code:** ________________
Healthcare Documentation Program
Mail-in Quiz 23

1. Fill in your student ID and your program code below.

STUDENT ID NUMBER  PROGRAM CODE

2. Be sure your name and address are filled in below.

3. Transfer your answers to this cover sheet.

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40. __________

41. __________________________

42. __________________________

43. __________________________

44. __________________________

45. __________________________
Way to go!
You’re half way through the Surgery section.

Keep up the progress!
Turn the page to learn more about the Surgery section, including maternity care and delivery.

No need to wait for the results of your Quiz before you move on.