Optum

Desk Reference

# Coders' Desk Reference for ICD-10-PCS Procedures

Clinical descriptions with answers to your toughest ICD-10-PCS coding questions



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# Contents





 

 

# Introduction



Coding is a complicated business. It is not enough to have a current copy of an ICD-10-PCS book—coders must have a firm enough grasp of medical terminology, anatomy, and surgical techniques to be able to translate procedure descriptions in medical records into detailed codes. ICD-10-PCS guidelines state that the physician is not responsible for changing the common procedure terminology he or she uses to document procedures so that it better matches terminology used in the coding system. Rather, the burden is on the coder, who must interpret physicians' procedure descriptions and reflect them in the appropriate ICD-10-PCS codes. The *Coders' Desk Reference for ICD-10-PCS Procedures* addresses this challenge.

This book provides coders, coding managers, medical staff and health care professionals, payers, educators, and students with comprehensive, clear descriptions of procedures. The goal is to enrich users' clinical understanding of surgical procedures and how they relate to the way ICD-10-PCS classifies procedures. The result is improved coding confidence so that code selection becomes more accurate and efficient. The coding guidance in *Coders' Desk Reference for ICD-10-PCS Procedures* is based on the official version of the ICD-10 Procedure Coding System (ICD-10-PCS), effective October 1, 2023. (Please note that this procedure coding reference is intended to be used with an official ICD-10-PCS code book.)

This desk reference is organized by common procedure nomenclature used in the hospital setting, which is linked to the related root operation tables. The procedures are described in layman's terms, translated to ICD-10-PCS root operation terminology, and the corresponding root operation tables are identified.

Detailed descriptions using terminology coders see in medical documents, together with coding clarification and guidance and important instruction regarding ICD-10-PCS conventions, make *Coders' Desk Reference for ICD-10-PCS Procedures* an unparalleled guidebook to code selection.

**Important Message:** Not all categories, subcategories, or procedures have been represented in this edition of the *Coders' Desk Reference for ICD-10-PCS Procedures*. Additional procedures not part of the 2023 edition will gradually be incorporated into future editions.

## ICD-10-PCS Overview

### ICD-10-PCS Code Structure

ICD-10-PCS has a multiaxial, seven-character, alphanumeric code structure. Each character contains up to 34 possible values. Each value represents a specific option for the general character definition. The 10 digits Ø–9 and the 24 letters A–H, J–N, and P–Z may be used for each character. The letters O and I are not used so as to avoid confusion with the digits Ø and 1.

An ICD-10-PCS code is the result of a process rather than a single fixed set of digits or alphabetic characters. The process consists of combining semi-independent values from among a selection of values, according to the rules governing the construction of codes. A code is derived by choosing a specific value for each of the seven characters. Based on details about the procedure performed, values are assigned for each character specifying the section, body system, root operation, body part, approach, device, and qualifier. Because the definition of each character is also a function of its physical position in the code, the same letter or number placed in a different position in the code has a different meaning.

The seven characters that make up a complete code have specific meanings that vary for each of the 17 sections of the manual. Procedures are divided into sections that identify the general type of procedure (e.g., Medical and Surgical, Obstetrics, Imaging). The first character of the procedure code always specifies the section. The second through seventh characters have the same meaning within each section but may mean different things in other sections. In all sections, the third character specifies the general type, or root operation, of procedure performed (e.g., Resection, Transfusion, Fluoroscopy), while the other characters give additional information such as the body part and approach.

### ICD-10-PCS Index

Codes may be found in the index based on the general type of procedure (e.g., Resection, Transfusion, Fluoroscopy), or a more commonly used term (e.g., appendectomy). For example, the code for percutaneous intraluminal dilation of the coronary arteries with an intraluminal device can be found in the ICD-10-PCS index under "Dilation" or a synonym for dilation (e.g., "Angioplasty"). The index then specifies the first three or four values of the code or directs the user to see another term.

The user can use the alphabetic index to locate the appropriate table containing all the information necessary to construct a procedure code. The PCS tables should always be consulted to find the most appropriate valid code. Coders may choose a valid code directly from the tables; they do not have to consult the index before proceeding to the tables to complete the code.

# ICD-10-PCS Official Guidelines for Coding and Reporting 2023



Narrative changes appear in **bold** text.

The Centers for Medicare and Medicaid Services (CMS) and the National Center for Health Statistics (NCHS), two departments within the U.S. Federal Government's Department of Health and Human Services (DHHS) provide the following guidelines for coding and reporting using the International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS). These guidelines should be used as a companion document to the official version of the ICD-10-PCS as published on the CMS website. The ICD-10-PCS is a procedure classification published by the United States for classifying procedures performed in hospital inpatient health care settings.

These guidelines have been approved by the four organizations that make up the Cooperating Parties for the ICD-10-PCS: the American Hospital Association (AHA), the American Health Information Management Association (AHIMA), CMS, and NCHS.

These guidelines are a set of rules that have been developed to accompany and complement the official conventions and instructions provided within the ICD-10-PCS itself. They are intended to provide direction that is applicable in most circumstances. However, there may be unique circumstances where exceptions are applied. The instructions and conventions of the classification take precedence over guidelines. These guidelines are based on the coding and sequencing instructions in the Tables, Index and Definitions of ICD-10-PCS, but provide additional instruction. Adherence to these guidelines when assigning ICD-10-PCS procedure codes is required under the Health Insurance Portability and Accountability Act (HIPAA). The procedure codes have been adopted under HIPAA for hospital inpatient healthcare settings. A joint effort between the healthcare provider and the coder is essential to achieve complete and accurate documentation, code assignment, and reporting of diagnoses and procedures. These guidelines have been developed to assist both the healthcare provider and the coder in identifying those procedures that are to be reported. The importance of consistent, complete documentation in the medical record cannot be overemphasized. Without such documentation accurate coding cannot be achieved.

## Conventions

**A1.** ICD-10-PCS codes are composed of seven characters. Each character is an axis of classification that specifies information about the procedure performed. Within a defined code range, a character specifies the same type of information in that axis of classification.

*Example:*

> The fifth axis of classification specifies the approach in sections Ø through 4 and 7 through 9 of the system.

**A2.** One of 34 possible values can be assigned to each axis of classification in the seven-character code: they are the numbers Ø through 9 and the alphabet (except I and O because they are easily confused with the numbers 1 and Ø). The number of unique values used in an axis of classification differs as needed.

*Example:*

> Where the fifth axis of classification specifies the approach, seven different approach values are currently used to specify the approach.

**A3.** The valid values for an axis of classification can be added to as needed.

*Example:*

> If a significantly distinct type of device is used in a new procedure, a new device value can be added to the system.

**A4.** As with words in their context, the meaning of any single value is a combination of its axis of classification and any preceding values on which it may be dependent.

*Example:*

> The meaning of a body part value in the Medical and Surgical section is always dependent on the body system value. The body part value Ø in the Central Nervous body system specifies Brain and the body part value Ø in the Peripheral Nervous body system specifies Cervical Plexus.

**A5.** As the system is expanded to become increasingly detailed, over time more values will depend on preceding values for their meaning.

*Example:*

> In the Lower Joints body system, the device value 3 in the root operation Insertion specifies Infusion Device and the device value 3 in the root operation Replacement specifies Ceramic Synthetic Substitute.

**A6.** The purpose of the alphabetic index is to locate the appropriate table that contains all information

# ICD-10-PCS Root Operation Definitions

| Ø Medical and Surgical | | | |
|---|---|---|---|
| **ICD-10-PCS Value** | | **Definition** | |
| Ø | Alteration | Definition: | Modifying the anatomic structure of a body part without affecting the function of the body part |
| | | Explanation: | Principal purpose is to improve appearance |
| | | Examples: | Face lift, breast augmentation |
| 1 | Bypass | Definition: | Altering the route of passage of the contents of a tubular body part |
| | | Explanation: | Rerouting contents of a body part to a downstream area of the normal route, to a similar route and body part, or to an abnormal route and dissimilar body part. Includes one or more anastomoses, with or without the use of a device. |
| | | Examples: | Coronary artery bypass, colostomy formation |
| 2 | Change | Definition: | Taking out or off a device from a body part and putting back an identical or similar device in or on the same body part without cutting or puncturing the skin or a mucous membrane |
| | | Explanation: | All CHANGE procedures are coded using the approach EXTERNAL |
| | | Examples: | Urinary catheter change, gastrostomy tube change |
| 3 | Control | Definition: | Stopping, or attempting to stop, postprocedural or other acute bleeding |
| | | Explanation: | None |
| | | Examples: | Control of post-prostatectomy hemorrhage, control of intracranial subdural hemorrhage, control of bleeding duodenal ulcer, control of retroperitoneal hemorrhage |
| 4 | Creation | Definition: | Putting in or on biological or synthetic material to form a new body part that to the extent possible replicates the anatomic structure or function of an absent body part |
| | | Explanation: | Used for gender reassignment surgery and corrective procedures in individuals with congenital anomalies |
| | | Examples: | Creation of vagina in a male, creation of right and left atrioventricular valve from common atrioventricular valve |
| 5 | Destruction | Definition: | Physical eradication of all or a portion of a body part by the direct use of energy, force, or a destructive agent |
| | | Explanation: | None of the body part is physically taken out |
| | | Examples: | Fulguration of rectal polyp, cautery of skin lesion |
| 6 | Detachment | Definition: | Cutting off all or a portion of the upper or lower extremities |
| | | Explanation: | The body part value is the site of the detachment, with a qualifier if applicable to further specify the level where the extremity was detached |
| | | Examples: | Below knee amputation, disarticulation of shoulder |
| 7 | Dilation | Definition: | Expanding an orifice or the lumen of a tubular body part |
| | | Explanation: | The orifice can be a natural orifice or an artificially created orifice. Accomplished by stretching a tubular body part using intraluminal pressure or by cutting part of the orifice or wall of the tubular body part. |
| | | Examples: | Percutaneous transluminal angioplasty, internal urethrotomy |

# Procedure Eponyms

| Eponym | Description | ICD-10-PCS Table Reference |
|---|---|---|
| Abbe | Vaginal construction — creation of vaginal canal (vaginoplasty) without graft or prosthesis | **0UQG** Repair Vagina |
| Abbe | Vaginal construction — creation of vaginal canal (vaginoplasty) with graft or prosthesis | **0UUG** Supplement Vagina |
| AbioCor® | Implantation of total internal biventricular heart replacement system | **02RK** Replacement Ventricle, Right<br>**02RL** Replacement Ventricle, Left |
| Aburel | Intra-amniotic injection of abortifacient for abortion | **10A** Abortion Pregnancy |
| Adams | Excision of palmar fascia for release of Dupuytren's contracture | **0JB** Excision Subcutaneous Tissue and Fascia |
| Adams | Advancement of round ligament(s) of uterus | **0US9** Reposition Uterus |
| Adams | Crushing of nasal septum | **09SM** Reposition Nasal Septum |
| AESOP® | Robotic assisted procedures — Automated Endoscopic System for Optimal Positioning | **8E0** Other Procedures Physiological Systems and Anatomical Regions |
| Albee | Bone peg, femoral neck<br>Graft for slipping patella<br>Sliding inlay graft, tibia | **0QU** Supplement Lower Bones |
| Albert | Arthrodesis, knee | **0SG** Fusion Lower Joints |
| Aldridge (-Studdiford) | Urethral sling | **0TSD** Reposition Urethra |
| Alexander | Shortening of round ligaments of uterus | **0US9** Reposition Uterus |
| Alexander-Adams | Shortening of round ligaments of uterus | **0US9** Reposition Uterus |
| Almoor | Extrapetrosal drainage | **099** Drainage Ear, Nose, Sinus |
| Altemeier | Perineal rectal pull-through operation | **0DTP** Resection Rectum |
| Ammon | Dacryocystotomy incision (for drainage) of a lacrimal sac | **089** Drainage Eye |
| Anderson | Tibial lengthening | **0Q8** Division Lower Bones<br>**0QR** Replacement Lower Bones<br>**0QU** Supplement Lower Bones |
| Anderson-Hynes | Dismembered Pyeloplasty | **0TQ** Repair Urinary System |
| Anel | Dilation of lacrimal duct | **087X** Dilation Lacrimal Duct, Right<br>**087Y** Dilation Lacrimal Duct, Left |
| Arslan | Fenestration of inner ear | **09QD** Repair Inner Ear, Right<br>**09QE** Repair Inner Ear, Left |
| Asai | Laryngoplasty | **0CQS** Repair Larynx<br>**0CRS** Replacement Larynx<br>**0CUS** Supplement Larynx |
| Baffes | Interatrial transposition of venous return | **02U5** Supplement Atrial Septum |
| Baffle | Atrial/interatrial/intra-atrial transposition of venous return | **02U5** Supplement Atrial Septum |
| Baldy-Webster | Uterine suspension | **0US9** Reposition Uterus |

# Surgical Terms



A special language is spoken in the surgical suite and written in the medical charts documenting procedures. The following list includes many of the medical terms heard most often in the operating room.

**ablation**. Surgical removal or destruction of a part, using electrocautery, radiofrequency, laser, chemicals, or hot and cold liquids.

**abrasion**. Removal of layers of skin.

**achalasia**. Failure of the smooth muscles within the gastrointestinal tract to relax at points of junction; most commonly referring to the esophagogastric sphincter's failure to relax when swallowing.

**acromioplasty**. Repair of the part of the shoulder blade that connects to the deltoid muscles and clavicle.

**advance**. To move away from the starting point.

**allograft**. Transplanted tissue from the same species.

**amputation**. Removal of a limb or part of a limb.

**analysis**. Study of a body section or parts.

**anastomosis**. Surgically created connection between ducts, blood vessels, or bowel segments to allow flow from one to the other.

**aneurysm**. Circumscribed dilation or outpouching of an artery wall, often containing blood clots connecting directly with the lumen of the artery.

**angioplasty**. Reconstruction of a blood vessel.

**antibody**. Immunoglobulin or protective protein encoded within its building block sequence to interact only with its specific antigen.

**antigen**. Substance inducing sensitivity or triggering an immune response and the production of antibodies.

**antrum**. Chamber or cavity, typically with a small opening.

**appliance**. Device providing function to a body part.

**arthrocentesis**. Aspiration of fluid from a joint with needle.

**arthrodesis**. Surgical fixation of a joint.

**arthroplasty**. Restoration of a joint.

**arthroscopy**. Endoscopic examination of a joint.

**arthrotomy**. Surgical incision into a joint.

**articulate**. Comprised of separate segments joined together, allowing for movement of each part on the other.

**aspiration**. Drawing in or out by suction.

**assay**. Test of purity.

**astragalectomy**. Surgical excision of the talus (ankle) bone.

**augmentation**. Add to or increase the substance of a body site, usually performed as plastic reconstructive measures. Augmentation may involve the use of an implant or prosthesis, especially within soft tissue or grafting procedures, such as bone tissue.

**autograft**. Any tissue harvested from one anatomical site of a person and grafted to another anatomical site of the same person. Most commonly, blood vessels, skin, tendons, fascia, and bone are used as autografts.

**avulse**. Tear away from.

**benign**. Mild or nonmalignant in nature.

**bioartificial**. Comprising both living tissue or cells and synthetic materials.

**biofeedback**. Technique allowing the patient to control body function.

**biometry**. Statistical analysis of biological data.

**biopsy**. Tissue or fluid removed for diagnostic purposes through analysis of the cells in the biopsy material.

**blood type**. Classification of blood by group.

**bougie**. Probe used to dilate or calibrate a body part.

**bovine.** Of or relating to cattle (cows).

**brachytherapy**. Radiotherapy proximate to the organ being treated.

**bridge**. Connection between two parts of an organ.

**bronchoscopy.** Visual inspection of the airway using a fiberoptic scope.

**brush**. Tool used to gather cell samples or clean body part.

**burr**. Drill used to cut and shape bone.

**bursa**. Cavity or sac containing fluid that occurs between articulating surfaces and serves to reduce friction from moving parts.

**bypass**. 1) Auxiliary flow. 2) A surgically created pathway altering the route of passage of the contents of a tubular body part.

**calculus**. Concretion of calcium, cholesterol, salts, or other substances that forms in any part of the body.

**cannula**. Tube inserted to facilitate passage.

**capsulorrhaphy**. Suturing or repair of a joint capsule, most frequently done on the glenohumeral joint.

# Abdominoplasty

## Body System

**Anatomical Regions, General**

## PCS Root Operation

**Alteration**

**Repair**

**Supplement**

**Root Operation Table**

ØWØ Anatomical Regions, General, Alteration

ØWQ Anatomical Regions, General, Repair

ØWU Anatomical Regions, General, Supplement

**Body Part**

Abdominal Wall

**Approach**

Open

External (Repair, Stoma)

**Device**

Autologous Tissue Substitute (Alteration, Supplement)

Synthetic Substitute (Alteration, Supplement)

Nonautologous Tissue Substitute (Alteration, Supplement)

No Device (Alteration, Repair)

**Qualifier**

Stoma

No Qualifier

## Description

An abdominoplasty is a repair of the abdominal wall, which is classified to the body system "General Anatomical Regions" in PCS. Anatomically, the abdominal wall is subdivided into two general regions: the anterolateral and the posterior abdominal wall. It is composed of three tissue layers: skin, superficial fascia, and muscle. Surgical procedures on the abdominal wall involve all three of these tissue layers. Abdominoplasty may be performed for either cosmetic or medical purposes.

**Alteration**

Alteration involves modifying an anatomic structure without affecting the function of the body part. The root operation Alteration identifies procedures that are cosmetic in nature. Use of this root operation requires diagnostic confirmation that the abdominoplasty is being performed to improve appearance.

Abdominoplasty performed for cosmetic reasons may also be referred to as a "tummy tuck." The procedure involves removing excess skin and underlying subcutaneous tissue and abdominal fat as well as tightening and restoring abdominal musculature. A cosmetic abdominoplasty may also involve reinforcement of the abdominal wall with biological or synthetic material, which is reported with the appropriate device value.

***Focus Point***

*A cosmetic abdominoplasty (abdominal panniculectomy) that involves only the removal of excess skin, underlying subcutaneous tissue, and fat, without muscle tightening, is assigned a code from table ØJØ.*

**Repair**

The root operation Repair involves restoring a body part, in this case the abdominal wall, to its normal anatomic structure and function. Repair is primarily used when an injury to the abdominal wall requires layered suture repair. Repair of the abdominal wall may also be required for stoma complications, such as a parastomal hernia. When the repair of the abdominal wall is focused on a stoma, the qualifier Stoma is reported.

***Focus Point***

*Do not report the root operation Repair when mesh is used to reinforce a repair of the abdomen.* See *the root operation Supplement.*

**Supplement**

When the abdominal wall is repaired and biological or synthetic material is used to reinforce or augment the repair, the correct root operation is Supplement. A common procedure classified to this root operation is the repair of a hernia involving the abdominal wall using mesh to reinforce the repair. Mesh may also be used in the repair of complex abdominal wall anomalies.

***Focus Point***

*Do not report the root operation Supplement when biological or synthetic material is used but the objective of the procedure is solely cosmetic in nature. In this case, the correct root operation is Alteration and the biological or synthetic material used to reinforce the abdominal wall is captured using the appropriate device value. All methods, approaches, and devices used to improve appearance are coded as Alteration.*

## Coding Guidance

**AHA:** 2017, 3Q, 8; 2014, 4Q, 38

# Fontan Stage III, Completion

*See also* Fontan Stage I (Norwood Procedure)

*See also* Fontan Stage II (Glenn Procedure) (Caval-pulmonary Artery Anastomosis)

## Body System

**Lower Veins**

## PCS Root Operation

**Bypass**

**Root Operation Table**
Ø61 Lower Veins, Bypass

**Body Part**
Inferior Vena Cava

**Approach**
Open

**Device**
Synthetic Substitute

**Qualifier**
Pulmonary Trunk
Pulmonary Artery, Right
Pulmonary Artery, Left

## Description

The treatment of congenital heart defects such as hypoplastic left heart syndrome usually requires a three-stage surgical procedure. The Fontan completion stage III procedure is the last stage.

The right pulmonary artery (or left in situs inversus) is exposed from the main pulmonary trunk to the hilum of the lung using an Open approach. The superior vena cava is detached from the right atrium. The atrial hole is closed. A hole is made in the top part of the pulmonary artery, and the cut end of the superior vena cava is connected to the hole in the pulmonary artery. Pulmonary blood flow comes directly from the venous system and bypasses the heart. Cardiopulmonary bypass with or without circulatory arrest is required. Blood flow is directed from the inferior caval vein, through a tunnel created inside the right atrium to the pulmonary artery. This tunneled connection may be completed using a synthetic tube graft. All systemic venous return is diverted away from the heart and directly into the pulmonary circulation. The right atrium is widely opened. A large patch of pericardium or Dacron is used for one wall of the tunnel. The lateral wall of the right atrium forms the other half of the tunnel. The tunnel leads from the inferior caval vein, where it joins the right atrium, to the undersurface of the pulmonary artery. The mouth of the tunnel is connected to a hole on the undersurface of the pulmonary artery.

***Focus Point***

*Cardiopulmonary bypass is an exception to the usual practice of not reporting supporting procedures that are components of a larger operation. When a surgical procedure is performed with cardiopulmonary bypass, it is coded as an additional procedure and reported as 5A1221Z Performance of Cardiac Output, Continuous.*

## Coding Guidance

**AHA:** 2017, 4Q, 36; 2014, 3Q, 29

# Myomectomy, Uterine

## Body System
**Female Reproductive System**

## PCS Root Operation
**Excision**

**Root Operation Table**
ØUB Female Reproductive System, Excision

**Body Part**
Uterus

**Approach**
Open
Percutaneous Endoscopic
Via Natural or Artificial Opening, Endoscopic

## Description
Myomas, also called leiomyomas and uterine fibroids, are benign smooth muscle tumors commonly occurring in the wall of the uterus. They may appear within the muscle (intramural), near the surface of the outside wall of the uterus (subserosal), or near the surface on the inside wall of the uterus (submucosal). They may be pedunculated, with a mass inside the uterus or within the peritoneal cavity. Myomectomy is an option for patients who have symptomatic myomas and wish to preserve their fertility.

The physician performs an Open myomectomy, removing a fibroid tumor or tumors from the wall of the patient's uterus through a transverse abdominal incision under direct visualization. The anterior sheath of the rectus abdominus muscle is dissected, and the muscles are retracted. Vasoconstrictors are injected, and a tourniquet is applied to encompass the uterine mass and the adnexa to limit blood flow. The physician incises the uterus through the myometrium to expose the myoma, which is dissected free from surrounding myometrium. The pedicle is isolated, clamped, and ligated, and the myoma is dissected from the pedicular blood supply. Other myomas are identified by palpating the uterine wall through the defect created by the already excised myoma. Any adjacent myomas may be reached by tunneling and removed through the initial incision. Additional incisions may be required for more distant myoma sites in the uterus. The uterus is closed with layered suturing. Anti-adhesion prophylaxis may be instilled in the abdominal cavity, and the operative wound is closed.

Alternatively, the physician may perform a laparoscopic myomectomy via a Percutaneous Endoscopic approach, removing a fibroid tumor or tumors from the wall of the patient's uterus. The patient is placed in the dorsal lithotomy position. A trocar is inserted periumbilically, and the abdomen is insufflated with gas. Additional trocars are placed in the right and left lower quadrants. The physician incises the uterus through the myometrium to expose the myoma, which is dissected free from surrounding myometrium. The pedicle is isolated, clamped, and ligated, and the myoma is dissected from the pedicular blood supply. Any adjacent myomas may be reached by tunneling and removed through the initial incision. Additional incisions may be required for more distant myoma sites in the uterus. Morcellation (division into smaller pieces or fragments) may be required to remove the myomas via a collection bag through the laparoscopic incision. The uterus is closed with layered suturing. The laparoscopic instruments are removed, and the operative wounds are closed.

A hysteroscopic myomectomy involves removing the fibroids with electricity or laser through the vagina, which is Via Natural or Artificial Opening, Endoscopic approach. The physician vaginally inserts a resectoscope equipped with a small light and advances through the cervix and into the uterus where a saline solution is instilled to expand the cavity for better visualization and access. The resectoscope using laser beams resects the fibroids from the uterine wall. The resectoscope is removed and the cavity drained. The excised fibroid particles are washed out with the saline fluid.

***Focus Point***
*Excision of multiple uterine myomas is reported only once, as only one body part, the Uterus, is the site of the excision. According to ICD-10-PCS Multiple Procedure guidelines, the operation is reported multiple times only when performed on multiple body parts defined by distinct body part values or separate and distinct body parts classified to a single ICD-10-PCS body part value. The uterus has only one body part value and no other distinct body parts classified in ICD-10-PCS.*

## Coding Guidance
**AHA:** 2014, 4Q, 16

# Vasectomy



## Body System
**Male Reproductive System**

## PCS Root Operation
**Excision**

**Root Operation Table**
ØVB Male Reproductive System, Excision

**Body Part**
Vas Deferens, Right
Vas Deferens, Left
Vas Deferens, Bilateral

**Approach**
Open
Percutaneous
Percutaneous Endoscopic

## Description
Vasectomy is a permanent contraceptive procedure in which a segment of the vas deferens is excised to prevent spermatozoa from being released during ejaculation. The vas deferens is also called the ductus deferens.

The testes are suspended in the scrotum by the spermatic cord, which contains nerves, blood vessels, lymphatics, and the vas deferens. The cord is encased in fascia. The vas deferens continues from the scrotum over the superior public ramus to above and behind the urinary bladder, where it enters the prostate and forms the ejaculatory duct.

Spermatozoa are manufactured in the bilateral testes and stored in the epididymides, where they mature. Spermatozoa enter the vas deferens during sexual arousal. During ejaculation, spermatozoa mix with fluid from the seminal vesicles and the prostate gland. This fluid is released from the ejaculatory duct into the urethra. After vasectomy, the patient still produces semen, but the semen contains no spermatozoa.

In an Open vasectomy, an incision is made through the scrotal wall to expose the tubular structures within, and another incision is made to expose the vas deferens, which is dissected free of adjacent structures. The isolated vas deferens is cut in two places, and the intervening section of vas deferens is removed. The cut ends of the vas deferens are cauterized and sutured closed. The operative site is closed in layers. The same procedure is performed on the contralateral vas deferens to effect the sterilization of the patient.

A Percutaneous vasectomy is often called the no-scalpel vasectomy (NSV). In NSV, the surgeon uses fingertips to find the spermatic cord within the scrotum and positions the vas deferens against the scrotal skin, where it is clamped with an open ring clamp. The vas deferens is pinched by the clamp, and the skin overlying it is incised. The vas deferens is pulled out of the skin, and a segment is excised. The remaining ends may be cauterized. The cauterized ends are allowed to retract back into the scrotum. The small incision usually does not require suture. The same procedure is performed on the contralateral vas deferens to effect the sterilization of the patient.

In a Percutaneous Endoscopic vasectomy, the vasa deferentia of the patient are severed during a separate laparoscopic procedure; for example inguinal hernia repair. The patient's abdomen is insufflated, and several portals through the skin provide access for surgical tools, lighting, and camera. The vasa deferentia are isolated in the inguinal ring or abdominal cavity, and a segment of each is removed. The remaining ends may be cauterized. No scrotal incisions are made.

***Focus Point***
*A vasectomy performed during a separate laparoscopic procedure would be reported in addition to the code for the primary procedure. Any procedure that meets the reporting criteria for a separate procedure is coded separately in ICD-10-PCS.*

***Focus Point***
*A vasectomy is normally done on both sides and would be reported with the body part Vas Deferens, Bilateral.*

# Fractional Flow Reserve (FFR), Coronary

*See also* Angiography, Cardiac (Coronary Arteriography) (Angiocardiography), under "Imaging" in the Ancillary section

## Body System

**Physiological Systems**

## PCS Root Operation

**Measurement**

**Root Operation Table**

4AØ Measurement and Monitoring, Physiological Systems, Measurement

**Body System**
Arterial

**Approach**
Percutaneous

**Function/Device**
Pressure

**Qualifier**
Coronary

## Description

Fractional flow reserve (FFR), or intravascular pressure measurement, is a type of intracoronary pressure measurement used to evaluate blood flow using comparative pressure measurements of the blood flow across a coronary lesion or stenosis. Fractional flow reserve is used to evaluate the severity of coronary artery stenosis and complex disease such as multivessel disease. Intravascular pressure measurement may be used in addition to coronary angiography to provide a more complete assessment of the severity of coronary disease. *See also* Angiography, Cardiac (Coronary Arteriography) (Angiocardiography), in the Imaging section of the Ancillary section.

A pressure-sensitive guidewire is inserted distal to the native coronary lesion to compare the coronary pressure with the aortic pressure proximal to the lesion to assess the severity of the lesion in terms of limitation of blood flow. Since this pressure is being determined at a point in time rather than over a period of time, the root operation used to report this procedure is Measurement. The pressure of blood flow being measured is within the coronary arteries and therefore the body system Arterial is reported. The qualifier Coronary identifies the location of the arteries.

***Focus Point***

*Additional codes should be assigned for any synchronous diagnostic or therapeutic procedures such as angiography, ventriculography, or PTCA.*

## Coding Guidance

**AHA:** 2016, 3Q, 37

# Arteriography, Renal (Renal Angiography) (Angiography, Renal Arteries)

## Body System

**Lower Arteries**

## PCS Root Type

**Plain Radiography**

**Fluoroscopy**

**Root Operation Table**

B4Ø Imaging, Lower Arteries, Plain Radiography

B41 Imaging, Lower Arteries, Fluoroscopy

**Body Part**

Renal Artery, Right

Renal Artery, Left

Renal Arteries, Bilateral

Renal Artery Transplant (Plain Radiography)

**Contrast**

High Osmolar

Low Osmolar

Other Contrast

None

**Qualifier**

Laser (Fluoroscopy)

None

**Qualifier**

Intraoperative (Fluoroscopy)

None

## Description

Renal arteriography, also known as renal angiography, is performed to visualize the blood vessels of the kidneys. This is typically performed for problems with the blood vessels that feed the kidneys such as blood clots, blockages, abnormal structures, spasms, neoplasms, high blood pressure, abnormally narrowed (stenosed) or widened vessels (aneurysms), fistulas, or bleeding. Renal arteriography may also be performed to examine kidney donors and recipients before transplant surgery.

The access area is prepped and anesthetized. A vascular access catheter is inserted through a small incision, usually an artery in the groin region. The catheter is guided by passage of a guide wire and using fluoroscopic imaging, and it is threaded through the pelvic vessels and the aorta to the renal artery. When the catheter is in place, dye is injected. X-ray images are recorded as the dye moves through the vessels. The physician may use a laser-aiming device attached to a C-arm to aid in accuracy and reduce radiation exposure during intraoperative fluoroscopy. After images are recorded, the needle and catheter are removed. Pressure may be applied to the site to stop bleeding, or a closure device may be used.

***Focus Point***

*When an imaging service is provided secondary to a principal procedure, the imaging service may be reported separately.*

## Coding Guidance

**AHA:** 2016, 3Q, 36

Ancillary