



AMERICAN
HEALTH
INFORMATION
MANAGEMENT
ASSOCIATION



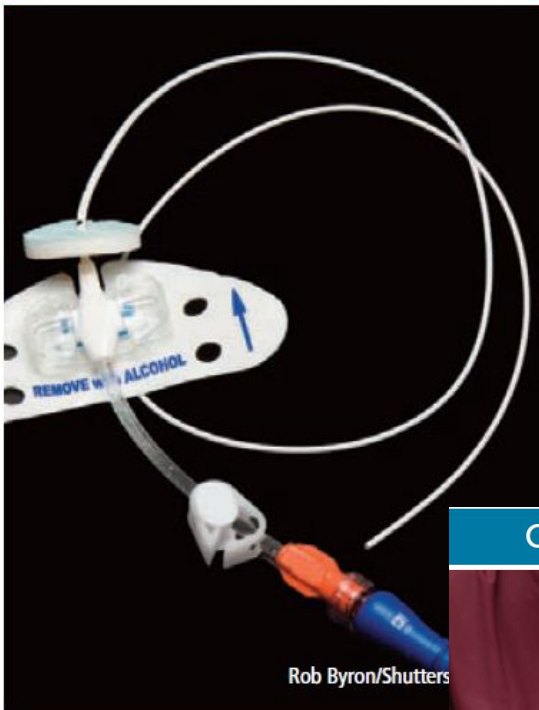
ICD-10-PCS



Root Operations Group - 6

Root Operations That Always Involve a Device

Insertion (H)



Replacement (R)



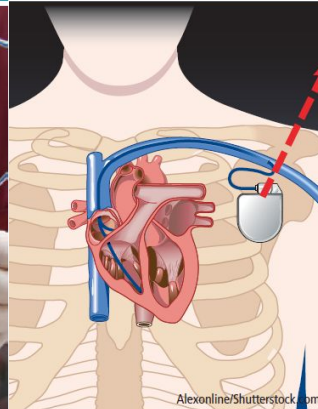
Supplement (U)



Change (2)



Removal (P)



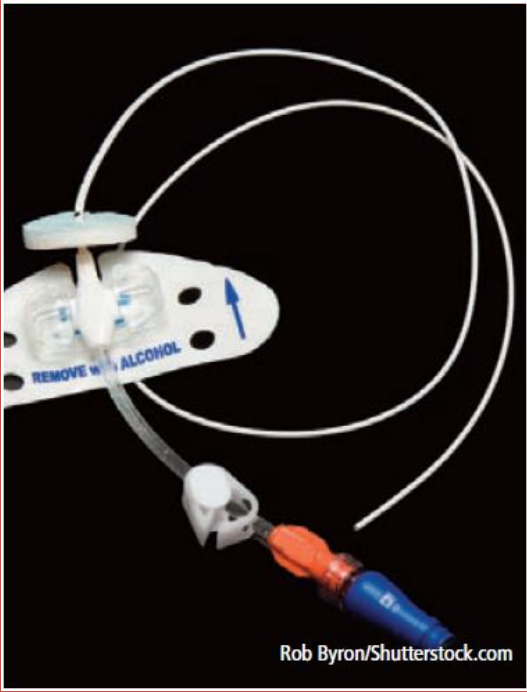
Revision (W)



STILLFX/Shutterstock.com

After
Break...

Insertion (H)

Insertion (H)	Definition Putting in a non-biological appliance that monitors, assists, performs or prevents a physiological function but does not physically take the place of a body part
 Rob Byron/Shutterstock.com	Explanation N/A
	Examples Insertion of radioactive implant, insertion of central venous catheter

Insertion

The root operation **Insertion** represents those procedures where the sole objective is to put in a device *without doing anything else* to a body part. Procedures typical of those coded to **Insertion** include putting in a vascular catheter, a pacemaker lead, or a tissue expander.

Case To Code

The patient undergoes a placement of a dual chamber pacemaker for treatment of symptomatic sick sinus syndrome. An incision was made and a subcutaneous pocket in the chest wall area was created. The generator was placed in the subcutaneous pocket and the incision was closed. Both the right atrial and right ventricle leads were placed percutaneously.

Case Answer

- 0JH606Z Root Operation: Insertion
Insertion of device in, Subcutaneous
Tissue and Fascia, Chest (0JH6)
- 02H63JZ Root Operation: Insertion
Insertion of device in, Atrium, Right
(02H6)
- 02HK3JZ Root Operation: Insertion
Insertion of device in, Ventricle,
Right (02HK)

Case Table

Section	Medical and Surgical	0
Body System	Subcutaneous Tissue and Fascia	J
Root	Insertion	H
Body Part	Subcutaneous Tissue and Fascia, Chest	6
Approach	Open	0
Device	Pacemaker, Dual Chamber	6
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Insertion	H
Body Part	Atrium, Right	6
Approach	Percutaneous	3
Device	Cardiac Lead, Pacemaker	J
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Insertion	H
Body Part	Ventricle , Right	K
Approach	Percutaneous	3
Device	Cardiac Lead, Pacemaker	J
Qualifier	No Qualifier	Z



Rationale

The root operation Insertion is used to code all three procedures. Three codes are required since three different devices were inserted: the generator, the right ventricle lead, and the right atrium lead.

Replacement (R)

Replacement (R)	Definition Putting in or on biological or synthetic material that physically takes the place and/or function of all or a portion of a body part
 skyhawk/Shutterstock.com	Explanation The body part may have been taken out, replaced, or may be taken out, physically eradicated, or rendered nonfunctional during the Replacement procedure. A Removal procedure is coded for taking out the device used in a previous replacement procedure.
	Examples Total hip replacement, bone graft, free skin graft, phacoemulsification with IOL implant (phaco without IOL implant is extraction), heart valve replacement, replacement cornea, free TRAM.

Replacement

The objective of **Replacement** procedures is to put in a device that takes the place of some or all of a body part.

Coding Note: Replacement includes taking out the body part.



Case To Code

The patient underwent percutaneous lamellar keratoplasty, with donor corneal tissue, bilateral.

Case Answer

- 08R93KZ Root Operation: Replacement
Replacement, Cornea, Left (08R9)
- 08R83KZ Root Operation: Replacement
Replacement, Cornea, Right
(08R8)

Case Table

Section	Medical and Surgical	0
Body System	Eye	8
Root	Replacement	R
Body Part	Cornea, Left	9
Approach	Percutaneous	3
Device	Nonautologous Tissue Substitute	K
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Eye	8
Root	Replacement	R
Body Part	Cornea, Right	8
Approach	Percutaneous	3
Device	Nonautologous Tissue Substitute	K
Qualifier	No Qualifier	Z

Rationale

Index: Keratoplasty, *see* Repair, Eye; *see* Replacement, Eye; *see* Supplement, Eye. In this case, Replacement meets the intent of the procedure.

There is not a body part value for bilateral cornea, therefore the right and left cornea are coded separately. The device is Nonautologous Tissue Substitute (K) because the tissue came from a donor.

Supplement (U)

Supplement (U)



STILLFX/Shutterstock.com

Definition

Putting in or on biologic or synthetic material that physically reinforces and/or augments the function of a portion of a body part.

Explanation

The biological material is non-living, or is living and from the same individual. The body part may have been previously replaced, and the Supplement procedure is performed to physically reinforce and/or augment the function of the replaced body part.

Examples

Herniorrhaphy using mesh, (herniorrhaphy without mesh is Repair), free nerve graft, mitral valve ring annuloplasty, put a new acetabular liner in a previous hip replacement.

Supplement

- The objective of procedures coded to the root operation **Supplement** is to put in a *device that reinforces or augments the functions of some or all of a body part*.
- The body part may have been taken out during a previous procedure, but is not taken out as part of the **Supplement** procedure.
- **Supplement** includes a wide range of procedures, from hernia repairs using mesh reinforcement to heart valve annuloplasties and grafts, such as nerve grafts that supplement but do not physically take the place of the existing body part.

Cases to Code

The patient underwent a left inguinal hernia repair with Marlex mesh for a left inguinal hernia. An inguinal incision was made and carried down through the subcutaneous tissues until the external oblique fascia was reached. A piece of 3 x 5 mesh was obtained and trimmed to fit. It was placed in the inguinal canal.

Case Answer

0YU60JZ Root Operation: Supplement
Supplement, Inguinal Region, Left
(0YU6)

Case Table

Section	Medical and Surgical	0
Body System	Anatomical Regions, Lower Extremities	Y
Root	Supplement	U
Body Part	Inguinal Region, Left	6
Approach	Open	0
Device	Synthetic Substitute	J
Qualifier	No Qualifier	Z

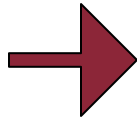
Rationale

Index: Herniorrhaphy, with synthetic substitute, *see* Supplement, Anatomical Regions, Lower Extremities (0YU)

The body system is one of the General Anatomic Regions and Lower Extremities would be selected because the inguinal region is below the diaphragm. See Coding Guideline B2.1b. The device is a Synthetic Substitute (J).

Root Operations That Always Involve a Device

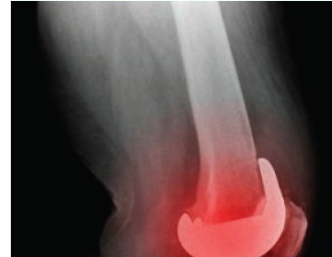
Already covered



Insertion (H)



Replacement (R)



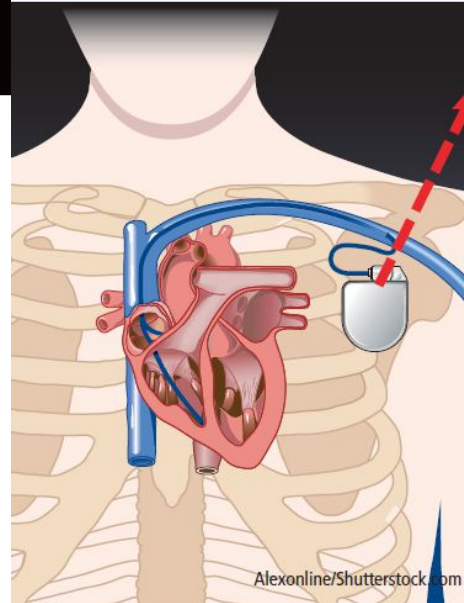
Supplement (U)



Change (2)



Removal (P)



Revision (W)



LLFX/Shutterstock.com

Bork/Shutterstock.com

Alexonline/Shutterstock.com

Steve Reed/Shutterstock.com

AHIMA

Change (2)

Change (2)	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, drainage tube change

Change

- The root operation **Change** represents only those procedures where a **similar device** is exchanged **without making a new incision or puncture**.

- Typical **Change** procedures include exchange of drainage devices and feeding devices.

Coding Note: In the root operation **Change**, general body part values are used when the **specific** body part value is not in the Table.

Index Alert!

“Change device in” vs. “Change device in or on”



Case To Code

The patient has a chest tube in the right pleural cavity for a right pneumothorax. The chest tube was exchanged for a new similar chest tube.

Case Answer

0W29X0Z Root Operation: Change
Change device in, Pleural Cavity,
Right (0W29X)

Case Table

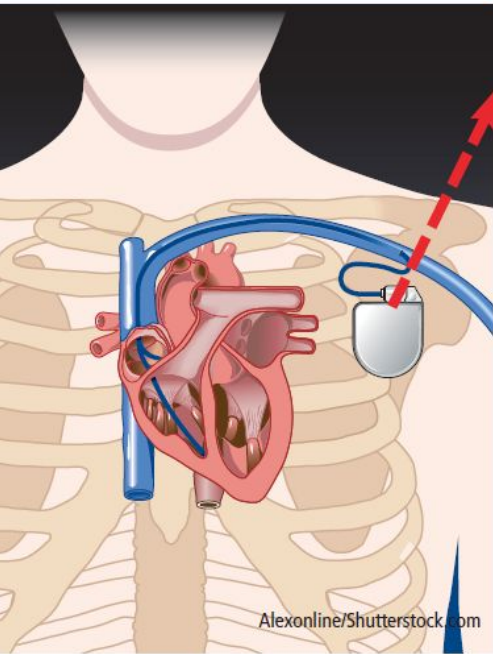
Section	Medical and Surgical	0
Body System	Anatomical Regions, General	W
Root	Change	2
Body Part	Pleural Cavity, Right	9
Approach	External	X
Device	Drainage Device	0
Qualifier	No Qualifier	Z

Rationale

Index: Change device in

A chest tube is a flexible, plastic tube that is inserted through the side of the chest into the pleural space. The body part would be the pleural cavity which is part of the Anatomical Regions, General (0W2).

Removal (P)

Removal (P)	Definition	Taking out or off a device from a body part
 Alexonline/Shutterstock.com	Explanation	If the device is taken out and a similar device is put in without cutting or puncturing the skin or mucous membrane, the procedure is coded to the root operation Change . Otherwise, the procedure for taking out the device is coded to the root operation Removal .
	Examples	Drainage tube removal, cardiac pacemaker removal, central line removal

Removal

A procedure to remove a device is coded to **Removal** if it is not an integral part of another root operation, and regardless of the approach or the original root operation by which the device was put in.

Case To Code

Percutaneous replacement of transvenous right atrial and ventricular leads of a dual chambered pacemaker. The pacemaker was initially placed four years ago. The generator remains intact and is not replaced.

Case Answer

02PA3MZ	Root Operation: Removal Removal of device from, Heart (02PA)
02PA3MZ	Root Operation: Removal Removal of device from, Heart (02PA)
02H63JZ	Root Operation: Insertion Insertion of device in, Atrium, Right (02H6)
02HK3JZ	Root Operation: Insertion Insertion of device in, Ventricle, Right (02HK)

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Removal	P
Body Part	Heart	A
Approach	Percutaneous	3
Device	Cardiac Lead	M
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Removal	P
Body Part	Heart	A
Approach	Percutaneous	3
Device	Cardiac Lead	M
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Insertion	H
Body Part	Atrium, Right	6
Approach	Percutaneous	3
Device	Cardiac Lead, Pacemaker	J
Qualifier	No Qualifier	Z

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Insertion	H
Body Part	Ventricle, Right	K
Approach	Percutaneous	3
Device	Cardiac Lead, Pacemaker	J
Qualifier	No Qualifier	Z

Rationale

Based on the ICD-10-PCS definitions, this procedure is not a Replacement. This procedure is coded to the root operation Removal to remove the old leads and the root operation Insertion to insert the new leads. Based on Coding Guideline B3.2b, two codes are required for the removal of the leads because the same root operation is repeated on different body sites (atrium and ventricle) that are included in the same body part value (heart). The insertion also requires two codes because the right atrium and right ventricle are identified with individual body part values.

Revision (W)

Revision (W)	Definition	Correcting, to the extent possible, a malfunctioning or displaced device
 An X-ray image of a hip joint showing a total hip replacement. The femoral head and neck are visible on the left, and the acetabular cup is on the right. The image is in grayscale with a dark background. Steve Reed/Shutterstock.com	Explanation	Revision can include correcting a malfunctioning device by taking out and/or putting in part of the device
	Examples	Adjustment of pacemaker lead, adjustment of hip prosthesis, revision of pacemaker insertion

Revision

- **Revision** is coded when the objective of the procedure is to **correct** the positioning or function of a previously placed device, without taking the entire device out and putting a whole new device in its place.
- A complete redo of the original root operation is coded to the root operation performed.



Coding Note: Revision

In the root operation Revision, general body part values are used when the specific body part value is not in the Table.



Case To Code

Adjustment of position, pacemaker lead in right atrium, percutaneous

Case Answer

02WA3MZ

Root Operation: Revision
Revision of device in, Heart
(02WA)

Case Table

Section	Medical and Surgical	0
Body System	Heart and Great Vessels	2
Root	Revision	W
Body Part	Heart	A
Approach	Percutaneous	3
Device	Cardiac Lead	M
Qualifier	No Qualifier	Z



Rationale

Index: Revision of device in



Questions on Group 6?