

Medical and Surgical Root Operations

Root Operation	Root Operation Character	Definition	Qualifier/Explanation	Example
Root Operations that Take Out Some or All of a Body Part				
Excision	B	Cutting out or off, without replacement, a portion of a body part	The qualifier DIAGNOSTIC is used to identify excision procedures that are biopsies	Partial nephrectomy, liver biopsy
Resection	T	Cutting out or off, without replacement, all of a body part		Total nephrectomy, total lobectomy of lung
Detachment	6	Cutting off all or part of the upper or lower extremities	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	Below knee amputation, disarticulation of shoulder
Destruction	5	Physical eradication of all or a portion of a body part by the direct use of energy, force or a destructive agent	None of the body part is physically taken out	Fulguration of rectal polyp, cautery of skin lesion
Extraction	D	Pulling or stripping out or off all or a portion of a body part by the use of force	Dilation and curettage, vein stripping	Dilation and curettage, vein stripping
Root Operations That Take Out Solids, Fluids, Gases from a Body Part				
Drainage	9	Taking or letting out fluids and/or gases from a body part	The qualifier DIAGNOSTIC is used to identify drainage procedures that are biopsies	Thoracentesis, incision and drainage
Extirpation	C	Taking or cutting out solid matter from a body part	The solid matter may be an abnormal byproduct of a biological function or a foreign body. The solid matter is imbedded in a body part, or is in the lumen of a tubular body part. The solid matter may or may not have been previously broken into pieces. No appreciable amount of the body part is taken out	Thrombectomy, choledocholithotomy
Fragmentation	F	Breaking solid matter in a body part into pieces	The solid matter may be an abnormal byproduct of a biological function or a foreign body. Physical force (e.g., manual, ultrasonic) applied directly or indirectly through intervening body parts is used to break the solid matter into pieces. The pieces of solid matter are not taken out, but are eliminated or absorbed through normal biological functions	Extracorporeal shockwave lithotripsy, transurethral lithotripsy
Root Operations Involving Cutting or Separation Only				
Division	8	Cutting into a body part without draining fluids and/or gases from the body part in order to separate or transect a body part	All or a portion of the body part is separated into two or more portions	Spinal cordotomy, osteotomy
Release	N	Freeing a body part from an abnormal physical constraint by cutting or by use of force	Some of the restraining tissue may be taken out but none of the body part is taken out	Adhesiolysis, carpal tunnel release
Root Operations That Put in or Put Back or Move Some or All of a Body Part				
Transplantation	Y	Putting in or on all or a portion of a living body part taken from another individual or animal to physically take the place and/or function of all or a portion of a similar body part	The native body part may or may not be taken out, and the transplanted body part may take over all or a portion of its function	Kidney transplant, heart transplant
Reattachment	M	Putting back in or on all or a portion of a separated body part to its normal location or other suitable location	Vascular circulation and nervous pathways may or may not be reestablished	Reattachment of hand, reattachment of avulsed kidney
Transfer	X	Moving, without taking out, all or a portion of a body part to another location to take over the function of all or a portion of a body part	The body part transferred remains connected to its vascular and nervous supply	Tendon transfer, skin pedicle flap transfer
Reposition	S	Moving to its normal location or other suitable location all or a portion of a body part	The body part is moved to a new location from an abnormal location, or from a normal location where it is not functioning correctly. The body part may or may not be cut out or off to be moved to the new location	Reposition of undescended testicle, fracture reduction
Root Operations That Alter the Diameter/Route of a Tubular Body Part				
Restriction	V	Partially closing an orifice or the lumen of a tubular body part	The orifice can be a natural orifice or an artificially created orifice	Esophagogastric fundoplication, cervical cerclage
Occlusion	L	Completely closing an orifice or the lumen of a tubular body part	The orifice can be a natural orifice or an artificially created orifice	Fallopian tube ligation, ligation of inferior vena cava
Dilation	7	Expanding an orifice or the lumen of a tubular body part	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	Percutaneous transluminal angioplasty, pyloromyotomy
Bypass	1	Altering the route of passage of the contents of a tubular body part	Retouring contents around an area of a body part to another distal (downstream) area in the normal route; rerouting the contents to another different but similar route and body part; or to an abnormal route and another dissimilar body part. It includes one or more concurrent anastomoses with or without the use of a device such as autografts, tissue substitutes and synthetic substitutes	Coronary artery bypass, colostomy formation
Root Operations That Always Involve a Device				
Insertion	H	Putting in a non-biological device that monitors, assists, performs or prevents a physiological function but does not physically take the place of a body part		Insertion of radioactive implant, insertion of central venous catheter
Replacement	R	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	The biological material is non-living, or the biological material is living and from the same individual. The body part may have been previously taken out, previously replaced, or may be taken out concomitantly with the Replacement procedure. If the body part has been previously replaced, a separate Removal procedure is coded for taking out the device used in the previous replacement	Total hip replacement, bone graft, free skin graft
Supplement	U	Putting in or on biologic or synthetic material that physically reinforces and/or augments the function of a portion of a body part	The biological material is non-living, or the biological material is living and from the same individual. The body part may have been previously replaced. If the body part has been previously replaced, the Supplement procedure is performed to physically reinforce and/or augment the function of the replaced body part	Herniorrhaphy using mesh, free nerve graft, mitral valve ring anuloplasty, put a new acetabular liner in a previous hip replacement
Change	2	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	All CHANGE procedures are coded using the approach EXTERNAL	Urinary catheter change, gastrostomy tube change
Removal	P	Taking out or off a device from a body part	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 and the procedure for putting in the new device is coded to the root operation PERFORMED	Drainage tube removal, cardiac pacemaker removal
Revision	w	Correcting, to the extent possible, a malfunctioning or displaced device	Revision can include correcting a malfunctioning or displaced device by taking out or putting in components of the device such as a screw or pin	Adjustment of pacemaker lead, adjustment of hip prosthesis
Root Operations Involving Examination Only				
Inspection	J	Visually and/or manually exploring a body part	Visual exploration may be performed with or without optical instrumentation. Manual exploration may be performed directly or through intervening body layers	Diagnostic arthroscopy, exploratory laparotomy
Map	K	Locating the route of passage of electrical impulses and/or locating functional areas in a body part	Applicable only to the cardiac conduction mechanism and the central nervous system	Cardiac mapping, cortical mapping
Root Operations That Define Other Objectives				
Fusion	G	Joining together portions of an articular body part rendering the articular body part immobile	The body part is joined together by fixation device, bone graft, or other means	Spinal fusion, ankle arthrodesis
Alteration	0	Modifying the anatomic structure of a body part without affecting the function of the body part	Principal purpose is to improve appearance	Face lift, breast augmentation
Creation	4	Making a new genital structure that does not take over the function of a body part	Used only for sex change operations	Creation of vagina in a male, creation of penis in a female
Root Operations That Define Other Repairs				
Control	3	Stopping, or attempting to stop, postprocedural bleeding	The site of the bleeding is coded as an anatomical region and not to a specific body part	Control of post-prostatectomy hemorrhage, control of post-tonsillectomy hemorrhage
Repair	Q	Restoring, to the extent possible, a body part to its normal anatomic structure and function	Used only when the method to accomplish the repair is not one of the other root operations	Herniorrhaphy, suture of laceration

