**ROOT OPERATION GROUPS**

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| Root Operation | Objective of Procedure | Site of Procedure | Example |
| Root operations that take out some/all of a body part | | | |
| Excision | Cutting out/off without replacement | Some of a body part | Breast lumpectomy |
| Resection | Cutting out/off without replacement | All a body part | Total mastectomy |
| Detachment | Cutting out/off without replacement | Extremity only, any level | Amputation above elbow |
| Destruction | Eradicating without replacement | Some/all of a body part | Fulguration of endometrium |
| Extraction | Pulling out or off without replacement | Some/all of a body part | Suction D&C |
| Root operations that take out solids/fluids/gasses from a body part | | | |
| Drainage | Taking/letting out fluids/gasses | Within a body part | Incision & Drainage |
| Extirpation | Taking/letting out solids/ fluids | Within a body part | Thrombectomy |
| Fragmentation | Breaking solid matter into pieces | Within a body part | Lithotripsy |
| Root operations involving cutting or separation only | | | |
| Division | Cutting into/separating a body part | Within a body part | Neurotomy |
| Release | Freeing a body part from constraint | Around a body part | Adhesiolysis |
| Root operations that put in/put back or move some/all of a body part | | | |
| Transplantation | Putting in a living body part from a person/animal | Some/all of a body part | Kidney transplant |
| Reattachment | Putting back a detached body part | Some/all of a body part | Reattach severed finger |
| Transfer | Moving, to function for a similar body part | Some/all of a body part | Skin transfer flap |
| Reposition | Moving, to normal or other suitable location | Some/all of a body part | Move undescended testis |
| Root operations that alter the diameter/route of a tubular body part | | | |
| Restriction | Partially closing orifice/lumen | Tubular body part | Gastroesophageal fundoplication |
| Occlusion | Completely closing orifice/lumen | Tubular body part | Fallopian tube ligation |
| Dilation | Expanding orifice/lumen | Tubular body part | Percutaneous transluminal coronary angioplasty (PTCA) |
| Bypass | Altering route of passage | Tubular body part | Coronary artery bypass graft (CABG) |
| Root operations that always involve a device | | | |
| Insertion | Putting in non-biological device | In/on a body part | Central line insertion |
| Replacement | Putting in device that replaces a body part | Some/all of a body part | Total hip replacement |
| Change | Exchanging device w/out cutting/ puncturing | In/on a body part | Drainage tube change |
| Removal | Taking out device | In/on a body part | Central line removal |
| Revision | Correcting a malfunctioning/displaced device | In/on a body part | Revision of pacemaker insertion |
| Supplement | Putting in device that reinforces or augments a body part | In/on a body part | Abdominal wall herniorrhaphy using mesh |
| Root operations involving examination only | | | |
| Inspection | Visual/manual exploration | Some/all of a body part | Diagnostic cystoscopy |
| Map | Locating electrical impulses/functional areas | Brain/cardiac conduction mechanism | Cardiac electrophysiological study |
| Root operations that include other repairs | | | |
| Repair | Restoring body part to its normal structure | Some/all of a body part | Suture laceration |
| Control | Stopping/attempting to stop post-procedural or other acute bleeding | Anatomical region | Post-prostatectomy bleeding |
| Root operations that include other objectives | | | |
| Fusion | Rendering joint immobile | Joint | Spinal fusion |
| Alteration | Modifying body part for cosmetic purposes without affecting function | Some/all of a body part | Face lift |
| Creation | Making new structure for sex change operation | Perineum | Artificial vagina/penis |